INVESTIGATING TEACHER LEADERSHIP CAPACITY IN CATHOLIC NATIONAL BLUE RIBBON SCHOOLS

A DISSERTATION

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

DOCTOR OF EDUCATION

BY

ANNETTE MARIE JONES

DISSERTATION ADVISOR: DR. MARILYNN QUICK

BALL STATE UNIVERSITY

MUNCIE, INDIANA

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BALL STATE UNIVERSITY
MUNCIE, INDIANA
MAY 2020

ABSTRACT

DISSERTATION: Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools

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The United States Department of Education recognizes outstanding non-public and public schools annually with the federal government's highest accolade, the National Blue Ribbon Award. For this national research study, over 100 Catholic schools awarded from 2015-2018 were vetted, then invited to participate in a research study on investigating teacher leadership capacity in their award-winning schools. This study, a quantitative survey for administrators and teachers with two open-ended questions for administrators, examined leadership qualities as well as the provided and valued professional development for building teacher leadership capacity in their schools. This research study generated 43 significant findings across the independent variables of gender, role in the school (administrator or teacher), setting (suburban, urban, or rural), student population in the school, seniority (in current school), total years of experience, and year of the National Blue Ribbon Award. Some encouraging findings indicated that the most provided and valued professional development activities, which supported strategies to foster teacher leadership capacity, could be readily accessible to teachers in their schools. These professional development activities were mentoring, teacher teams (vertical and horizontal), teacher committees or task forces, and instructional coaching.

Descriptors: National Blue Ribbon Award, elementary schools, Catholic schools, teacher leadership, leadership capacity, leadership qualities, professional development, shared leadership, distributed leadership, formal leaders, informal leaders, mentoring, teacher teams, teacher committees, instructional coaching.

DEDICATION

To my dear family: Martin (husband), Matthew and Allison (children), Margie and Frank Kenn (parents), thank you for your unwavering support, encouragement, and patience during this extraordinary journey. I love you!

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CHAPTER ONE
INTRODUCTION

The United States Department of Education launched the National Blue Ribbon Schools Program in 1982, which recognizes overall leadership and academic excellence among elementary, middle, and high schools throughout the country (Jones & Gallagher, 2017). These exemplary high-performing schools receive a National Blue Ribbon Award, the highest accolade designated to schools by the United States Department of Education (Jones & Gallagher, 2017).

Since the inception of the National Blue Ribbon Schools Program, over 7,500 schools have received this prestigious national recognition (Jones & Gallagher, 2017). Of these over 7,500 National Blue Ribbon Awards, non-public schools have earned about 1,700 accolades as only 50 non-public schools may be recognized annually (Jones & Gallagher, 2017). Given that the United States has approximately 33,600 non-public schools, the percentage of non-public schools receiving the National Blue Ribbon Award is approximately .05% nationally (http://www2.ed.gov). Specifically, in the fall of 2017, 38 Catholic schools of the 50 non-public schools, or 76% of non-public schools awarded, were recognized with the National Blue Ribbon Award by the United States Department of Education in Washington, D.C. (http://www.ncea.org).

Additionally, if one reviews the probability of a school becoming a National Blue Ribbon School among all the schools in the country, the prestigious award is more astounding. During the National Blue Ribbon Program on November 6-7, 2017 in Washington D.C., Jason Botel, Assistant Superintendent of Education, shared his perspective and congratulatory remarks with the audience of national leaders, administrators, and teachers. “It is rare to receive this prestigious award- only ¼ of 1% of all schools in the United States, public, private, or charter ever receive this award. To put it in a sports analogy, of the NCAA athletes who train and are at

the top of their game in college and pursue the NBA or WNBA, only 1.1% make it to the NBA and 0.9% of NCAA women's basketball players make it to the WNBA. In other words, a highly skilled college basketball player has a higher probability to make it to professional sports than a school has, to achieve Blue Ribbon Status" (http://www.vintagemagnet.net, "News" para. 4).

School administrators and teachers have noted that national recognition for their leadership and academic excellence is the rationale for completing the extensive application process (Jones & Gallagher, 2017). Additionally, administrators have incorporated the National Blue Ribbon accolade as part of their marketing campaigns to promote their schools to current and prospective parents (Jones & Gallagher, 2017). As part of the National Blue Ribbon Award, school communities enjoy the celebrations and festivities as well as the positive attention from local, state, and national media (Jones & Gallagher, 2017).

My background has led to my wondering and obtaining some empirical evidence to support what I was presupposing. Throughout my professional career, predominately in elementary teaching and elementary administrative experiences in Catholic schools, my interest in teacher leadership was sparked as I began my administrative career in 1998. Through my administrative coursework and practical application through my leadership role, I recognized that the collaboration among administrators and teacher leaders was a key to advancing the school's leadership capacity and academic programs. During my administrative career, extensive collaboration between administrators and teacher leaders netted National Blue Ribbon Awards at two Catholic elementary schools, St. Louis de Montfort Catholic School, Fishers, Indiana in 2013 and Immaculate Heart of Mary School, Indianapolis, Indiana in 2005.

In my role as Assistant Director for School Leadership at the National Catholic Educational Association (NCEA), I continued my connection with the National Blue Ribbon

Schools Program. In conjunction with the Council of American Private Education (CAPE), I served on the National Blue Ribbon Schools Selection Committee for non-public schools throughout the country. In addition, I presented at the formal National Blue Ribbon School program for the past four years in Washington D.C. Regardless of my vantage point as a professional leader, the development of "exemplary high performing" schools continues to prevail as a national priority. As the United States Department of Education oversees and directs the National Blue Ribbon Schools Program, selected "exemplary high performing" schools throughout the country are recognized and honored for their outstanding leadership and academic excellence.

For schools to be recognized as exemplary high-performing, the National Blue Ribbon Schools program has defined these as "the achievement of the school's students in the most recent year tested places the school in the top 15% in the nation in reading (or language arts) and mathematics as measured by a nationally normed test or in the top 15% of its state as measured by a state test (http://www.capenet.org, "Assessment Requirements," para. 1). If a non-public school administers both state tests and nationally normed tests, then the school must be in the top 15% percent in both (http://www.capenet.org, "Assessment Requirements," para. 1). For high schools, the graduation rate in the most recent class of graduates must be 95% or higher" (http://www.capenet.org, "Assessment Requirements," para. 1).

After the state and/or national assessment qualifications are accomplished, administrators and teachers may apply for the National Blue Ribbon Award. Non-public schools collaborate with the Council of American Private Education (CAPE) in order to complete the official application process, which is determined by the United States Department of Education. The extensive application process highlights the school's demographic data, curriculum, college

and career readiness, early childhood education, special area classes, instructional methods, interventions, assessments, school's culture, family and community engagement, professional development, and school's leadership (http://www.capenet.org).

As part of the National Blue Ribbon application, the United States Department of Education requires that professional development and school leadership maximize the involvement of teachers and focus on student achievement and school improvement. The professional development question expects a thorough description of the school's professional development approach and its impact on the capacity of teachers and administrators (http://www.capenet.org). The applicants' examples should illustrate how the district (archdiocese or diocese) and their school's professional development activities are aligned with academic standards and support students' achievement (http://www.capenet.org). For the school leadership question, the requirements include descriptions of the leadership philosophy and structure in the school, along with the roles of the principal, other school leaders, and stakeholders (http://www.capenet.org). Additionally, the applicants' examples should emphasize how the school's leadership ensure that policies, programs, relationships, and resources focus on the students' achievement (http://www.capenet.org).

For non-public schools, the National Blue Ribbon application is submitted to CAPE in December. In January, the National Blue Ribbon Selection Committee thoroughly reviews and evaluates each application. School administrators are notified about their application's status shortly after and, if selected, submit their final application to the United States Department of Education in February. In September, the United States Secretary of Education announces the National Blue Ribbon Schools. Finally, in November, the school administrators and school

representatives are invited to the formal National Blue Ribbon program and award ceremony in Washington, D.C.

Clearly, the National Blue Ribbon Schools are models of exceptional leadership capacity and academic achievement in the United States. Teacher leadership is imperative in our schools because administrators cannot lead schools alone. Based on a mission of building leadership capacity, *Learning Forward's* beliefs cite the importance of the teachers' role in leadership and continuous improvement (Hirsh, 2017). According to Stephanie Hirsh, executive director of *Learning Forward*, a culture of learning, continuous professional improvement and learning, and collective responsibility are the essential norms for maximizing teacher leadership capacity (Hirsh, 2017). Administrators and teachers enact shared instructional leadership by monitoring self-improvement, practicing collaboration in professional learning communities, participating in professional development activities, and improving their educational methods (Printy & Marks, 2004). The administrators and teachers of these exemplary schools can enlighten colleagues about the qualities, attributes, and involvement of teacher leaders in the school. In addition, shared knowledge about professional development and preparation for teacher leaders can assist all schools in their pursuit of becoming exemplary high-performing schools.

Statement of the Problem

In reviewing past studies on school leadership, the traditional model of school leadership focuses on a hierarchical structure with the principal as the primary leader. The principal sets the tone for the school, establishes goals, leads the curriculum and academics, and monitors the finances (Nappi, 2004). Under this traditional model, the focus is on determining the leaders and followers, so that one person impacts the direction and outcomes of the school (Helterbran, 2010). In the traditional model, the teachers have specific job descriptions and formal

responsibilities related to the classroom (Helterbran, 2010). As a result, teachers are isolated in their work and engage in minimal collaboration (Lee, Sachs & Wheeler, 2014).

Realizing the drawbacks of the traditional model, a new model of school leadership, called distributed leadership, has emerged in schools. The distributed leadership model engages administrators and teachers in the advancement of the school. Distributed leadership in a school is evidenced by professional learning communities, high student achievement, and collaborative learning (Wilhelm, 2013). In addition, teachers are identified and developed as teacher leaders becoming a critical component to the school's model of distributed leadership.

In reviewing professional literature regarding high-performing schools, minimal research studies have been conducted on the National Blue Ribbon Schools as designated by the United States Department of Education. Furthermore, research on Catholic elementary schools with the designation of the National Blue Ribbon Award is even rarer. The problem is a lack of information about teacher leadership, such as the qualities, professional development, and involvement of teacher leaders, in Catholic elementary schools that have achieved the highest accolade by the United States Department of Education. As high-performing schools in the country, the administrators and teachers in these Catholic elementary schools can enlighten the profession with best practices about teacher leadership in their schools.

My rationale for conducting this research was to unlock the best practices involving teacher leadership in the selected National Blue Ribbon Schools. Specifically, administrators and teachers identified the most valued qualities as important for effective teacher leaders, and then their responses were compared. Both teachers and administrators indicated the types of professional development that teacher leaders received in their schools and indicated the value of each listed professional development opportunity for the teacher leaders. Additionally,

administrators completed short open-ended questions about promoting and building teacher leadership capacity in their schools. The importance of this study is to provide insight about the qualities of teachers in informal leadership roles, the provided and valued professional development for teacher leaders, and the administrators' perspectives about promoting and building teacher leadership capacity in National Blue Ribbon award-winning Catholic elementary schools.

Purpose of the Study

The purpose of this study was to survey the administrators and teachers to determine the most valued qualities for effective teacher leaders. The differences in what administrators value about teacher leaders' qualities were compared to the qualities that teachers value in the schools' teacher leaders. Then, the differences in values to build teacher leadership were compared among the teachers to all independent variables. From the administrators' survey, two open-ended questions solicited the administrators' perceptions about promoting and building teacher leadership capacity in their schools. The independent variables in my study were: the participants' roles in the school, either administrator or teacher; gender; years of seniority (at current school); total years of experience (in education); school setting (suburban, urban, rural), student population of the school, the socio-economic demographics of the student population, and the year of the National Blue Ribbon Award. The dependent variables were the measurement of the value given to a list of qualities of teacher leaders and the identification and measurement of the value given to a list of professional development activities provided to teacher leaders on a survey instrument.

Significance of the Study

This study met a need in educational leadership because it offered perspectives from both

administrators and teachers from exemplary National Blue Ribbon elementary schools throughout the country. Specifically, this study significantly added to the understanding of the teacher leaders' qualities valued by administrators and teachers and the professional development provided and valued by administrators and teachers. The administrators' insights about promoting and building teacher leadership capacity in their schools was also included in this research study.

Despite over 250 exemplary and high-performing elementary and secondary schools achieving the National Blue Ribbon Award annually, research seemed quite limited on these distinguished schools, especially Catholic elementary schools that have achieved the National Blue Ribbon status. Some research studies on public schools achieving the National Blue Ribbon Award have focused on coaching conversations between principals and their teachers, negotiating the English core standards in Pennsylvania, cultivating a school culture that promotes academic success, examining educational technology characteristics, and noting safety changes in schools. This study focused on the qualities of informal teacher leaders, the provided and valued professional development that fosters teacher leadership capacity, and the administrators' insights about promoting and building teacher leadership capacity in their schools. Since these topics were not examined in recent National Blue Ribbon research studies, it was important to conduct research from both the administrators' and teachers' viewpoints to learn best practices of those who work in esteemed National Blue Ribbon elementary schools throughout the United States. This research of teacher leaders' qualities, preparedness, and the promotion of teacher leadership capacity built on the knowledge base and provided insight to other schools hoping to achieve award-winning status.

To advance the leadership roles of teachers in our schools, teachers' voices needed to be

heard and documented in research studies. "Although there have been many voices advocating various forms of distributed leadership, conspicuously missing from the literature are the voices of teachers (Li, 2015, p. 443)." This study clearly investigated the teachers' views in the qualities most valued for teacher leaders and the professional development provided and valued to prepare teacher leaders in the school.

Teachers need to be prepared to share leadership with the school's administrators and foster collaboration in professional learning communities. "The strategic focus on the preparation of teacher leaders to fully and effectively engage in the change process is a critical future direction for research and practice in teacher leadership" (Cooper, 2016, p. 24). In thinking of the school culture, "How do teachers find their preparedness to take on the role of teacher leaders (Lai & Cheung, 2015, p. 690)?"

From the results of surveying the specific population of administrators and teachers from National Blue Ribbon Schools, the educators, school leaders, and political leaders can learn about best practices of teacher leadership from these award-winning schools. From the perspectives of both administrators and teachers, the valued qualities of teacher leaders and the provided and valued professional development of teacher leaders; and from administrators, their insights of promoting and building teacher leadership capacity in schools were undoubtedly essential contributions to the research in educational leadership. Ultimately, the results of this study on distributed leadership could be used as an exemplar to advance schools' leadership capacity throughout the country.

Research Questions

The research questions that guided my study were:

1. What qualities do administrators and teachers most value to build teacher leadership capacity in schools?
2. a.) What are the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?
3. According to administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?
4. a.) What are the differences in their perceptions of professional development according to administrators and teachers?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in their perceptions about professional development?
5. What are the perceptions of administrators about building teacher leadership capacity in their schools?

Delimitations

Delimitations speak to how the scope of the study was streamlined by the researcher (Roberts, 2010) or the process for National Blue Ribbon award selection. Several delimitations were incorporated in this study, such as this research focused on Catholic elementary schools in the United States. The sample of Catholic elementary schools was awarded the United States Department of Education, National Blue Ribbon Award within the last four years (2015-2018).

The National Blue Ribbon Schools must qualify by state and national scores on standardized assessments in order to apply for the prestigious accolade. Given that approximately 35 Catholic schools are honored with the National Blue Ribbon Award annually,

the research pool of students is finite throughout the country. Finally, the National Blue Ribbon Schools are not equally distributed among all 50 states in the United States.

Definitions

The following definitions provide a common language based on the context of the study for the researcher, professional colleagues, and readers.

Action Research is "systemic form of inquiry carried out by teachers and administrators who seek answers to classroom-based problems and issues" (Lee, Sachs, & Wheeler, 2014, p. 220).

Change is "intentionally propelling others to do some specific thing in a specific way that differs from current practice" (Cooper, 2016, p. 4).

Climate is "the feeling that is conveyed in a group by the physical layout and the way in which members of the organization interact with each other, with customers, or with other outsiders (Schein, 1995, p. 276).

Collaboration is "a systemic process in which people work together, interdependently, to analyze and impact professional practice in order to improve individual and collective results (DuFour, DuFour & Eaker, 2008, p. 464).

Culture is "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaption and internal integration, that has worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1995, p. 279).

Delegating is "prompting others to get involved by capitalizing on the vast knowledge of the group" (Lovely, 2005, p. 18).

Distributed Leadership "shifts the focus from school principals and other formal and informal leaders to the web of leaders, followers, and their situations that gives form to leadership practice" (Spillane & Diamond, 2007, p. 7).

Influence means "indirectly altering another's practice by informing their thinking in ways that shape what they do" (Cooper, 2016, p. 4)

Leadership is "the ability to point out a way, direction or goal and to influence others toward it" Lowney, 2018, p. 13).

Leadership Capacity means "investing in the development of individual and collaborative efficacy of a whole group or system to accomplish significant" (Fullan, 2008, p. 13).

Leadership Teams are "the teams composed of representatives from various school departments (grade level and special education teachers and reading specialists) who are nominated and selected by the staff" (Lambert, 2002, p. 39); "members are accorded a more-or-less equal voice in decision-making (Conley & Muncey, 1999, p. 47).

Organization is "a collection of people and assets that serve a purpose" (De Pree, 1997, p. 21).

Practice is "used to refer to the comprehensive enactment of the profession, a set of specific skills or behaviors, the counterpart of theory and the actual doing of leadership in particular places and times" (Spillane & Orlina, 2005, p. 161).

Professional Learning Community (PLC) is a "conceptual framework with three major themes: 1. Solid foundation consisting of collaboratively developed and widely shared mission, vision, values, and goals. 2. Collaborative teams that work interdependently to achieve common

goals. 3. A focus on results as evidenced by a commitment to continuous improvement" (Eaker, DuFour & DuFour, 2002, p. 3).

Shared Instructional Leadership is a "relationship where both the principal and the teachers influence core instructional processes" (Printy, Marks & Bowers, 2009, p. 507).

Teacher Leadership is "the set of skills demonstrated by teachers who continue to teach students, but also have an influence that extends beyond their own classrooms to others within their own school and elsewhere. It entails mobilizing and energizing others with the goal of improving the school's performance of its critical responsibilities related to teaching and learning" (Danielson, 2006, p. 12).

Tension is "a characteristic of leadership in schools that make steady incremental and effective instructional improvement" (Printy & Marks, 2004, p. 125)

Transactional Leadership occurs "when one person takes the initiative in making contact with others for the purpose of an exchange of valued things (economic, political or psychological)" (Burns, 1995, p. 101).

Transformational (Transforming) Leadership occurs "when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1995, p. 101).

Trustworthy is "opening practice to others and valuing conversations with colleagues about teachers and leaders" (Cooper, 2006, p. 6).

Vertical Learning Teams mean "multiple grades are linked together in a common community in which teacher leaders have the authority to work closely with students in instruction, curriculum design, discipline, and family relations" (Lambert, 2002, p. 39).

Summary

The subsequent chapters will present additional information, perspectives, and research on distributive leadership in the school community. Chapter Two will outline the benefits and challenges of the distributed leadership model through a review of literature. Chapter Three will explain the research methods for the study. The results of the study will be described in Chapter Four. Chapter Five will include the conclusions and implications of the study and will state recommendations for future research.

CHAPTER TWO
LITERATURE REVIEW

An antiquated school leadership model viewed the principal as the sole leader of the school. This review of literature begins by comparing traditional school leadership to a newer model of school leadership, distributed leadership, which engages teachers as co-leaders in the school. Next, the focus turns to the qualities of teacher leaders and the conceptual framework of distributed leadership. Then, the review will synthesize research on the identification and engagement of teacher leaders and the potential problems with distributed leadership. Finally, the types of professional development for teacher leaders and their active roles in the school are explored.

Problem Statement

The time of the principal as the sole instructional leader has expired. Contemporary best practice is that the principal and other educators collaborate as instructional leaders throughout the school (Lambert, 2002). Principals can be the key to creating transformational change in schools when they are well-versed in understanding the importance of teacher leaders, how to accurately identify teacher leaders, and what professional development is relevant to strengthen teacher leadership in their schools.

At the same time, the teachers' voices need to be heard in the area of teacher leadership. Specifically, a teacher perspective is needed to glean the qualities most valued for teacher leaders and the professional development valued and needed to prepare teacher leaders in the school. This study provides background information and research in the areas of teacher leadership Qualities and the provided and valued professional development activities for teachers from both the administrators' and teachers' perspectives.

Theoretical Framework

The theoretical framework of distributed leadership underscored the importance of identifying, developing, and forming teacher leadership capacity in the school environment. Spillane & Orlina (2005) stated "a distributed leadership perspective allows for leadership that can be more or less collaborative and that can be democratic or autocratic" (p. 173). In looking through the lens of transactional and transformational leadership, school leaders can utilize these concepts to support the importance of distributed leadership in their school communities.

Distributed leadership. One definition of distributed leadership suggests that many people actively work together. Even though the experts lead, the assistance and management from stakeholders is prevalent (Harris, 2005). Harris (2005) also indicated that distributive leadership needs a positive climate. Distributed leadership maximizes work habits and assesses and improves the talents of members in the organization (Harris, 2005). Distributed leadership has proven benefits in schools, such as a link to school culture and school improvement; in other words, distributed leadership advances the organization by launching and sustaining school improvement as the result of teacher leadership (Cranston, 2000; Harris, 2005).

Distributed leadership positively affects teachers' morale (Harris, 2005). Each member of a school can demonstrate leadership (Frost & Harris, 2003). Distributed leadership is showcased by colleagues' responsibility for the school and their engagement in collaboration (Frost & Harris, 2003).

Transactional leadership. "A distributed perspective on leadership does privilege a transformational perspective over a transactional one. Distributed leadership is a best a relative of these 'approaches' to leadership" (Spillane & Orlina, 2005, p. 174). Transactional leadership or instructional leadership is based on contractual obligations, work on academic improvements,

established goals, and evaluative outcomes (Li, 2015; Printy, Marks & Bowers, 2009). The leader is described as the one who shares the vision and promotes organizational change (Li, 2015; Lambert, 2002). Through instructional leadership, both the administrators and teachers exchange best practices about instruction, curriculum and assessment (Printy, Marks, & Bowers, 2009).

Transformational leadership. Transformational leadership means leaders are "focused on furnishing individualized support, developing subordinates' capabilities, and creating partnerships focused on achieving goals" (Li, 2015, p.441). Appealing to the teachers' personal values and commitment to education, administrators inspire teachers to improve their educational practices (Printy, Marks, & Bowers, 2009). Teachers respond to transformational leadership by showing care and concern for their colleagues and offering to help them (Printy, Marks, & Bowers, 2009). By practicing transformational leadership, administrators and teachers are motivated to establish organizational goals and challenge each other to reach their collective potential (Printy, Marks, & Bowers, 2009). Spillane (2006) added that the followers' interaction with leaders and the situation contribute to defining leadership practice" (p. 17). As a result, administrators and teachers need to understand the concepts of distributed leadership, transactional leadership, and transformational leadership.

Background

In the traditional model of school leadership, a hierarchical structure placed the principal at the top and the teacher as subordinates. The principal was the primary person responsible for leadership and educational knowledge (Cooper, 2016). As the sole leader, the principal carried the burden and stress of the responsibility as the key decision-maker in the school.

Traditionally, teachers generally focused on their students, limiting their leadership skills

to their classroom (Helterbran, 2010; Li, 2015). With their focus on the students, teachers may have adopted an indifferent perspective about school-wide leadership, essentially avoiding additional leadership responsibilities (Li, 2015). Boardman (2001) noted that teachers may feel that leading both classroom and school-wide leadership activities is too difficult. Teachers may have believed that they do not possess the personality or have the professional skills for extensive teacher leadership (Helterbran, 2010).

In the 1980's, the teacher professionalism movement was initiated and caused change in the traditional model of school leadership. The hierarchical ranking was tweaked as teacher leaders moved above teachers and below administrators (Conley & Muncey, 1999). As a result, distributed leadership promoted and developed teacher leadership among colleagues in the school (Harris, 2005). York-Barr & Duke (2004) explained that teacher leadership is "the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increasing student learning and achievement" (p. 287-288).

Teacher Leader Qualities

School administrators and teachers need to know the essential teacher leadership qualities according to contemporary authors and researchers. Confidence is an essential ingredient in building teacher leadership capacity. Teacher leaders value different points of view, have confidence to express their opinions, and are comfortable to share differences of opinion (Conley & Muncey, 1999). In addition, teachers are not afraid of approaching administrators with issues or concerns (Conley & Muncey, 1999). Administrators who would like teachers to take initiative need to communicate that risk-taking is an acceptable practice (Heller, 1999). Teacher leaders

can be risk-takers with their opinions, contributions, and involvement in the school community (Augustine-Shaw, 2015; Rogers, 2005).

Teacher leadership qualities include good interpersonal relationship skills and effective communication with administrators, teachers, and students (Nappi, 2014; Henderson & Barron, 1995). Team members and leaders enjoy working collaboratively with people and students and possess good listening skills (Augustine-Shaw, 2015; Conley & Muncey, 1999). Teacher leaders have open communication with their team members, asking for information and guidance (Conley & Muncey, 1999). In order to be a productive team member, teacher leaders believe that teamwork is valuable, practicing confidentiality and flexibility as highly regarded professionals (Conley & Muncey, 1999; Printy & Marks, 2004).

Besides excellent organizational skills, strong analytical skills, and outstanding time management skills, teacher leaders create a climate conducive to academics, demonstrate exceptional effort, and envision beyond their routine tasks (Augustine-Shaw, 2015; Conley & Muncey, 1999; Rogers, 2005). Acting on intrinsic motivation and drive, they focus on self-improvement, facilitation of challenging conversations, and the knowledge of the change process (Henderson & Barron, 1995; Rogers, 2005). Teacher leaders are susceptible to criticism and failure (Rogers, 2005), just as formal leaders are recipients of both. However, teacher leaders also can become transformational leaders as they seek to empower others and practice the concept of human agency, meaning to make choices in the interest of others and oneself (Lai & Cheung, 2015; Printy & Marks, 2004).

Role of Teacher Leaders

Teacher leaders play integral roles in the school community. The role of teacher leader can be informal and emergent and is usually driven within each teacher (Helterbran, 2010).

Working on their educational practice, teacher leaders can affect classroom and school-wide improvement (Helterbran, 2010). Additionally, the teacher leaders determine a need and orchestrate ways to address the concern using their own capabilities and resources (Helterbran, 2010). Teacher leaders can participate in decision-making as they lead professional learning community groups, mentor new teachers or staff members, and assist with management duties (Devos, 2014; Nappi, 2014).

Benefits to Teacher Leaders

Teacher leaders have more influence on the direction of school events than they think (Helterbran, 2010). Teacher leadership is an act of professionalism and empowerment that can positively impact students and colleagues (Helterbran, 2010). For teacher leaders, the benefit of professional learning is to develop confidence, leadership skills, and talents in their leadership role (Helterbran, 2010). Typically, teacher leaders do not benefit financially from their leadership work at a school (Helterbran, 2010).

Teacher leaders can also positively connect with the school community (Nappi, 2014). As a voice of the school, teachers can influence others, offer constructive criticism, and manage conflict within the school and in the community (McKenzie & Locke, 2014; Singh, 2012; Warren, 2013). Specifically, teacher leaders can establish trust between organizations, such as assist with school-university collaborations (Vernon-Dotson & Floyd, 2012).

With distributed leadership, teachers, regardless of their role in the school, are motivated to work hard and take more responsibility for student achievement throughout the building (Printy & Marks, 2004; Wilhelm, 2013). Teacher leaders develop professional openness as they learn from their colleagues through conferences, peer instruction and observations, and mentoring programs for inexperienced or struggling teachers (Printy & Marks, 2004). Teacher

leaders look for continuous professional knowledge and opportunities to use their creativity throughout the school (Helterbran, 2010).

Spillane & Harris (2005) concluded that distributed leadership can transform a school, especially in the areas of the school's stability, the faculty's engagement, and the students' academic progress. In a school with distributed leadership, teacher leaders can maintain the stability of traditions and programs during formal leadership changes (Harris, 2005). Another benefit of teacher leadership is teachers feel a strong sense of responsibility for the decisions and vision at the school (Wilhelm, 2013). Through the teachers' engagement in school leadership, internal professional development by communicating and sharing professional knowledge and best practices becomes part of the school culture (Harris, 2005; Richardson, 2003). Productive internal collaboration enhances the teachers' professional formation and could remarkably improve teaching and learning (Geijsel, et al., 2009). Finally, teacher leadership capacity can affect students' personal growth and academic achievement (Hallinger & Heck, 2010; Harris & Spillane, 2005; Lambert, 2002).

Leadership Capacity

Distributed leadership is the foundation for reflecting on leadership and building leadership capacity in a school (Harris, 2005; Spillane & Orlina, 2005). The process of distributed leadership is ongoing as leaders continue to expand their knowledge and leadership skills (Harris & Spillane, 2008; Wilhelm, 2013). In addition, all teachers can advance their knowledge, skills, and abilities in a collaborative school environment, which is the goal of distributed leadership (Harris, 2005).

In a school environment, distributed leadership needs time to reach its full potential through organizational change (Cooper, 2016; Wilhelm, 2013). The "peaceful" change in the

school environment is largely determined by the relationship of the principal with his or her teachers (Cooper, 2016). Since organizational change can be a challenging process for both administrators and teachers, authors have recommended steps to move the school employees through the process.

Eight Steps	Steps for Leading Organizational Change	Description of Steps for Leading Organizational Change
Step 1	Create a Sense of Urgency	Describe an opportunity that will touch individuals' minds and hearts.
Step 2	Build a Guiding Coalition	Consists of members from multiple layers of the organizational structure.
Step 3	Form a Strategic Vision and Initiatives	Define targeted and coordinated activities that will make the vision a reality.
Step 4	Enlist a Volunteer Army	Large number of employees unites under a common opportunity and move in the same direction.
Step 5	Enable Action by Removing Barriers	Give employees freedom to work across boundaries and create meaningful impact.
Step 6	Generate Short-term Wins	Communicate short term wins to track progress and energize the team to lead change.
Step 7	Sustain Acceleration	Be persistent with initiating change after change until the vision is reality.
Step 8	Institute Change	Communicate the connections between the new behaviors and the organization's success.

Figure 1. Dr. John Kotter's eight descriptive steps to help administrators and teachers through the organizational change process. Adapted from Kotter, J. (2018). *8-step process for accelerating change.* Retrieved from https://www.kotterinc.com/wp-content/uploads/2018/05/8-Steps-eBook-Kotter-2018.pdf

For example, Dr. John Kotter (2014) noted the eight enhanced steps for leading organizational change. School leaders could incorporate Dr. Kotter's steps as they move toward distributed

leadership in their schools. Figure 1 illustrates the steps for leading the organizational change process.

School Structure

For school leadership, various models of leadership can occur in a school, such as informal leadership, teams of leaders, and structured leadership (Printy & Marks, 2010). The principal must realign the hierarchy, giving up power and control, in order to activate and advance distributed leadership (Harris 2005; Lai & Cheung, 2015). Principals need to create and support leadership in the school, so teachers can join the decision-making (Frost & Harris, 2003; Lai & Cheung, 2015).

School settings. Distributed leadership recognizes both formal and informal leaders and their contributions to the school community (Harris & Spillman, 2008). The formal leader's position or role, such as team leader, earns the respect of their colleagues (Lai & Cheung, 2015). Also, the colleagues highly regard the expertise and educational practice of informal leaders as they work on educational practices, instructional problems, and school improvement (Lai & Cheung, 2015). Distributed leadership focuses interactions among colleagues, not the exchanges between informal and formal leaders (Harris, 2005; Harris & Spillane, 2008). Regardless of formal or informal leadership status, effective school leadership is evidenced by principals and teachers collaborating on goals and decisions (Cranston, 2000).

Research indicates that rural and urban schools offer professional learning for their teachers. In one rural setting, the school district utilized the process of action research for its professional learning (Curry et al., 2018). This rural district implemented action research because such research had an organized structure, was cost effective, and could be sustained throughout the district (Curry et al., 2018). A benefit of action research impacted instructional

capacity, gave leaders insight into teachers' perceptions, and created collaborative networks among teachers, administrators, teachers, and community members (Curry et al., 2018).

Stewart and Matthews (2018) reported that principals in rural schools utilized higher education courses, such as online college courses, supported teachers' professional learning. Principals cited that "the availability of online college courses in higher education might be a relevant and easy resource for remote and rural principals" (Stewart & Matthews, 2018, p. 10). According to Green & Allen (2015), teachers in high-performing urban elementary-middle schools reported that "professional development designed as professional learning communities supporting increased teamwork and collaboration contributed to higher student achievement" (p. 70).

In rural schools with typically smaller school populations, successful principals have a collaborative leadership style, building relationships with teachers, students, parents, community members, and educational leaders (Preston & Barnes, 2017). According to Preston and Barnes (2017), "Collaborative leadership is founded on the beliefs that people are the most valuable resource of any organization or community" (p. 11). Often in rural settings, principals capitalize on this mindset of collaboration to maximize the outcomes of professional learning communities in their schools. Most principals believe that professional learning communities can contribute to creating change in their school cultures, empowering teacher to become leaders, promoting trust and respect among the faculty, and influencing outcomes for students' achievement (Willis & Templeton, 2018). Likewise, teachers have expressed the benefits of professional learning communities as gaining insight to the school's vision, feeling trusted by the school leaders, and affecting organizational change (Willis & Templeton, 2018).

In a recent study comparing high-performing urban schools and persistently low achieving rural schools, teachers in both groups reported that professional development offered at the school level was the most effective (Wallace, 2019). Additionally, teachers from both schools indicated that they most frequently participated in school level professional learning (Wallace, 2019). Interestingly, teachers from both schools indicated the second most frequent professional development was district level professional development, yet this professional development was reported as the least effective. From these research studies in rural and urban schools, action research, online college courses, professional learning communities, and school level professional learning emerged as provided and effective professional development for teachers in rural and urban settings.

Principals' Perspective

Principals must understand and see the importance of distributed leadership in their school's environment (Boardman, 2001). Clearly, the principal's perspective of teacher leadership influences the degree that teacher leadership is activated in the building (Frost & Harris, 2003). Principals need to feel confident with their skills and be patient with the distributive leadership process as they identify and develop teacher leaders (Helterbran, 2010; Wilhelm, 2013). In fact, self-confidence is foundational in earning others' trust and decision-making (Kirkpatrick & Locke, 1995). "Even when the decision turns out to be a poor one, the self-confident leader admits the mistake and uses it as a learning opportunity, often building trust in the process" (Kirkpatrick & Locke, 1995, p. 139). Through personal reflection, principals can discern the school's strengths, areas for improvement, and possible ways that teacher leadership can be highly integrated in their school's culture (Helterbran, 2010; Lovely, 2005).

Clearly, principals must complete their administrative responsibilities, yet effectively

share their formal power with others (Harris, 2005; Wilhelm, 2013). As leadership opportunities are dispersed among teachers, teachers are engaged in the responsibility and the decision-making process (Geijsel, et al., 2009; Wilhelm, 2013). In order to help teachers be successful in this role, principals need to teach leadership attitudes, temperaments, and skills to them (Richardson, 2003). Effective principals should guide and support teachers, yet encourage creativity and resourcefulness (Wilhelm, 2013).

Principals' communication. Through effective communication and consistent actions, principals motivate others to move toward the vision of change (Cooper, 2016). Principals should collect their thoughts, solicit input from others, and then formulate an explanation that appeals to both new and veteran teachers (Printy & Marks, 2004). School-wide conversations involve high-level thinking and discussions and collaboration, which often result in creativity and new ideas (Lambert, 2002). In order to promote distributed leadership, principals should promote effective communication by sharing new information, using collegial language, communicating and demonstrating gratitude, and showcasing teachers' accomplishments publicly (Dufault & Jones, 2018; Lovely, 2005). Open and honest communication encourages the admission of mistakes and problem-solving in small groups, which promotes a healthy school climate (Lovely, 2005).

Foundation of trust. According to Printy & Marks (2004) and Li (2015), trust is the foundation to a professional learning community and a positive school environment. Principals promote collaborative relationships and teams by establishing the norms and structures for teamwork and focusing on the specific weaknesses of individuals and groups (Augustine-Shaw, 2015; Li 2015; Tschannen-Moran, 2009). In a collaborative culture, principals support and encourage teachers' creativity to advance the school's programs (Helterbran, 2010; Lai &

Cheung, 2015; Printy & Marks, 2004). Serving as advisors, principals must practice confidentiality, listen effectively, and ask thoughtful questions (Augustine-Shaw, 2015; Li, 2015). The development of distributed leadership takes time and clearly requires trust and collaboration in order to effectively engage teachers and advance programs (Augustine-Shaw, 2015; Harris, 2005; Wilhelm, 2013). Tschannen-Moran (2009) cited that "teachers must also demonstrate that they have adopted a strong commitment to serving the needs of students and can be relied on to act on that commitment" (p. 229).

Instructional leadership. One goal of distributed leadership is continual progression toward academic excellence and school improvement (Rogers, 2005). Using the school's vision and values, principals create the foundation for the school's academic achievement goals (Printy & Marks, 2004). Principals are responsible for creating and sustaining an educational environment that fosters excellent instruction for all students (Augustine-Shaw, 2015). Additionally, the process of overcoming challenges or making difficult decisions about instructional leadership falls under the purview of the principal (Augustine-Shaw, 2015).

However, principals must recognize that they not alone in instructional leadership (Wilhelm, 2013). Through distributed leadership, principals and teachers collaborate and make important decisions regarding curriculum, instruction, and assessment practices (Printy, Marks & Bowers, 2009). Principals and teachers can reflect on their responsibilities toward their school's continuous improvement plan, curriculum and instruction, and data analysis (Jones & Kiely, 2020). School leaders and educators also participate in professional development opportunities, focusing on self-improvement and working on improving the academic offerings for the students (Printy & Marks, 2004; Wilhelm, 2013).

Distributed leadership positively impacts the schools' academic capacity (Hallinger &

Heck, 2010). In schools with high leadership capacity, principals and educators engage in significant conversations about curriculum and educational best practices (Helterbran, 2010; Lambert, 2002; Wilhelm, 2013). During these conversations, the teachers' skills, such as creativity and resourcefulness, become an essential part of instructional leadership, often resulting in innovation and effective school improvement (Helterbran, 2010; Lambert, 2002; Lee, Sachs & Wheeler, 2014; Printy, Marks & Bowers, 2009; Wilhelm, 2013). Vernon-Dotson & Floyd (2012) noted that positive change occurs in a school when both leaders and educators assume responsibility for school improvement.

Teachers' Perspective

Teachers offer valuable perspective to the lens of the school leadership. Besides engaging in daily interactions with the students, teachers can offer valuable insight in the areas of school culture and school improvement. By matching teachers' talents to leadership responsibilities, principals can deliberately enhance leadership skills, confidence and creativity in their teacher leaders. This section on teachers' perspectives highlights their rapport with students, school improvement, leadership skills.

Rapport with students. Teachers, as educational experts, are student-focused and develop an exceptional rapport with students (Helterbran 2010; Nappi, 2014; Vernon-Dotson & Floyd, 2012). Teachers who have positive relationships with students generally glean high academic performance with their students (Printy & Marks, 2004). These dedicated teachers share their time and effort to improve their professional skills (Helterbran, 2010).

School improvement. In a school environment, teacher leaders ultimately become apparent through their focus on student achievement and school improvement (Helterbran, 2010). Teacher leaders work collaboratively to advance their colleagues' knowledge, lead the

students' academic progress, and assist with the school's advancement (Cooper, 2016; Harris, 2005). These teachers work as leaders, changing their focus from their own classroom to the achievement, development, and needs of the entire school (Helterbran, 2010; Lai & Cheung, 2015; Richardson, 2003). For these teachers, leadership and increased responsibility can be a means to achieving their professional goals (Corrigan, 2013).

Leadership skills. In order to advance distributed leadership, teacher leaders need to develop their individual leadership skills, such as setting personal goals and leading curriculum development (Printy & Marks, 2004). Since teacher leaders are involved in school-wide initiatives, such as professional learning communities, group leadership skills, communication skills and conflict resolution skills are important to master (Lai & Cheung, 2015; Printy & Marks, 2004; Scribner et al., 2007). In order to facilitate success with teacher leaders, principals should match the teachers' talents and abilities with leadership assignments in the school (Lovely, 2005).

Leadership influence. In a distributed leadership model, teacher leaders demonstrate professionalism as they challenge the formal leadership structure (Harris, 2005; Lai & Cheung, 2015). The teacher leaders' impact is determined by how they see their leadership roles and their potential influence in the school (Frost & Harris, 2003). Through their high performance standards and actions, the teacher leaders' influence has the potential to reach colleagues, alter the school environment, and touch the school community (Frost & Harris, 2003).

School culture. Cranston (2000) noted the importance of teachers' involvement in the school leadership process. Teachers rely on the principal's support and a school culture that accepts the teachers' influence and leadership (Cooper, 2016; Li, 2015). As individuals or teams, teacher leaders promote a positive culture by focusing on school goals and improving

academic programs (Harris, 2005; Lai & Cheung, 2015; Li, 2015). Teacher leaders make decisions collaboratively and continue to improve the school's culture through their professional learning communities (Harris, 2005; Lai & Cheung, 2015; Li, 2015).

Progression of teacher leaders. As teacher leaders share their time and knowledge beyond their classrooms, their confidence, creativity, and leadership skills can develop and flourish (Lovely, 2005; Vernon-Dotson & Floyd, 2012). Leadership opportunities, such as participating in the interview process, taking responsibility for activities, or writing grants, are designed to help teacher leaders increase their confidence and practice their skills (Helterbran, 2010; Printy, Marks, & Bowers, 2009; Spillane, 2009). With dedicated time during the school day, teacher leaders can share educational practices and teach their professional skills to others (Algozzine, et al, 2007; Frost & Harris, 2003; Lai & Cheung, 2015; Wilhelm, 2013). Ultimately, as an essential step to leadership succession, teacher leaders may be promoted to formal leadership positions, such as principal or curriculum director (Frost & Harris, 2003; Nappi, 2014).

Challenges of Distributed Leadership

The traditional model of schools reinforces a hierarchical framework, not a collaborative structure such as distributive leadership (Li, 2015). Distributed leadership invites a school community to leave antiquated leadership practices and welcome the practice of supporting teacher leaders (Harris, 2005; Harris & Spillane, 2008). However, distributed leadership can cause confusion as traditional roles and responsibilities of administrators and teachers are overlapped in a school environment (Timperley, 2005).

Rapport among principals and teachers. Distributed leadership can inhibit collaborative relationships among administrators and teachers, such as administrators feeling

intimidated by the development of teacher leaders (Harris, 2005). Administrators need to be prepared for potential internal conflicts and devise a plan for responsibility and authority among the staff (Corrigan, 2013).

Teacher leaders and tension. The school's culture and values are expressed in the conversations among the colleagues (Frost & Harris, 2003). As conversations become more integrated through distributed leadership, tension may develop or increase among the colleagues (O'Gorman & Hard, 2013; Printy & Marks, 2004). Teacher leaders cited that their relationships with peers changed, often becoming more negative, due to the imbalance of social norms in the school (Wenner & Campbell, 2017). In anticipating this tension, teacher leaders need to effectively cope with this stress as their responsibilities increase (Nappi, 2014).

As a result of tension, teacher leaders can be involved in internal conflicts or ostracized among their peers (Harris, 2005). "Successful leaders are those who can adapt their leader behavior to meet the needs of their followers and the particular situation" (Hersey & Blanchard,1995, p. 148). Brett, Goldberg & Ury (1995) indicated that if tension and conflict are managed well, often the outcome can produce reasonable or innovative resolutions.

Professional Development

Leadership skills are proficiencies that can be taught and learned (Richardson, 2003). In order to empower teachers, principals can schedule professional development in essential leadership skills (Richardson, 2003). Principals should determine how teachers can acquire leadership skills, how they can work within the complex school culture, and how teachers can utilize their effective leadership skills in the school community (Richardson, 2003). "Training, coaching, or mentoring can make a huge difference in how productive people can be with the time they have" (Maxwell, 2008, p. 117).

During leadership training, teachers should learn how to support colleagues, demonstrate professionalism, nurture a positive school culture, and participate effectively in collaborative teamwork, such as professional learning communities and high-quality professional development (Lai & Cheung, 2015; Peske et al., 2001; Richardson, 2003). Teachers should have knowledge of the change process, the organizational structure of the school, and the curriculum and development process (Henderson & Barron, 1995; Richardson, 2003). Leadership training should also cover communication skills, collaboration skills, problem-solving skills, and decision-making skills (Henderson & Barron, 1995; Richardson, 2003). **"**Professional development is the corner-stone of improving practice and is essential to teacher growth, expertise, and skill development" (Helterbran, 2010, p. 369).

At the university level, one unproductive means of professional development for teachers is the "lecture by the expert" method (Vernon-Dotson & Floyd, 2012). The universities should offer various leadership skills for administrators and for teachers (Richardson, 2003). The universities need to develop a plan so that teachers understand how research findings translate into effective educational and leadership practice (Vernon-Dotson & Floyd, 2012).

Teacher education preparation programs should integrate and develop leadership skills and training into in-service and preservice training (Henderson & Barron,1995; Richardson, 2003). New teachers should be prepared for their participation in collaborative leadership and should know their responsibility in the school improvement process (Henderson & Barron,1995; Richardson, 2003). Recommendations for teacher preparation programs include knowledge of the change process and learning decision-making skills as part of professional development skills (Richardson, 2003).

Informal leadership. Teacher leaders are esteemed contributors for a school's leadership

(Richardson, 2003). Teachers who are not following the path of formal leadership, like a principal's role, should be trained in leadership skills, such as the knowledge of visionary leadership, the improvement of communication skills, and the enhancement of instructional practices (Richardson, 2003). With leadership training, teachers gain knowledge about legal issues and better understand the difficulties of the administrative role (Richardson, 2003). Also, teachers learn appropriate interactions with parents and gain techniques to foster collaboration and collegiality (Richardson, 2003). In addition, teacher leadership training covers topics such as projecting confidence, utilizing educational expertise, using problem-solving strategies, and developing interpersonal skills (Richardson, 2003).

Mentoring. The purpose of mentoring programs is to build confidence of new teachers by teaching them to be courageous risk-takers, to manage instructional time, to keep learning as a priority, and to challenge current viewpoints, including the school's culture (Algozzine, et al., 2007; Augustine-Shaw, 2015). Mentoring programs can also guide teachers as they learn to increase their leadership capacity and plan for professional development opportunities (Augustine-Shaw, 2015). Additionally, teachers acquire knowledge in problem-solving and gain experience with adapting to the school-wide needs (Augustine-Shaw, 2015). Principals should use peer coaching and mentoring with prospective and new teacher leaders (Rogers, 2005).

As experienced teachers mentored teachers (with less than 5 years of seniority), these veteran teachers "were motivated by the opportunity to express altruistic value, to provide affective support, to grow professionally through self-actualization, and to enhance a colleague's growth and development" (Garza, Ramirez & Ovando, 2009, p. 5). Experienced teachers who see themselves and colleagues as leaders can launch a paradigm shift in a school through their collaborating, learning, and teaching with novice teachers and other teacher leaders (Helterbran,

2010). As a result of the mentoring partnership, new teachers listen to experienced teachers, ask questions and seek advice, follow their suggestions, and essentially give authority to them (Helterbran, 2010; Rogers, 2005). These teacher leaders who practice collegiality develop confidence and risk-taking skills as they build relationships and increase their knowledge (Helterbran, 2010).

Instructional coaching. Psencik et al. (2016) explained that coaching "is a powerful professional learning process for facilitating others to make changes in instructional approaches that positively impact their teaching and student learning" (p. 57). As role models, instructional coaches can broaden their expertise by engaging in their own professional learning, such as research-based practices, strategies in adult learning, the *Standards for Professional Learning* (Learning Forward, 2011), and the *National Standards and Benchmarks for Effective Catholic Elementary and Secondary Schools* (Ozar & Weitzel-O'Neill, 2012). Instructional coaches can continue to share their knowledge and strategies with their colleagues, further improving their effectiveness and escalating students' learning (Pierce, et al., 2019, Psencik et al., 2016).

Bearwald (2011) indicated that coaching is about progress and formation. The culture of the school is greatly affected by the essential role of instructional coaches and their impact on instructional practice (Fullan & Knight, 2011). Knight (2011) suggested that coaches and teachers engage in shared learning through seven partnership principles: equality (share ideas and decisions), choice (teachers as final decision makers), voice (open and candid), reflection (individual thought), reciprocity (everyone learns with interaction), praxis (apply new knowledge and skills), and dialogue (think together) (p. 18-21). Specifically, when working together, coaches and teachers should listen attentively, reflect on students' needs and goals, ask questions, analyze lessons, explain instructional strategies, provide positive and constructive

feedback, and work across teams" (Jaquith, 2013; Knight, 2011; Bearwald, 2011). From the teachers' perspective, "one of the benefits of coaching is the opportunity to see oneself through another's eyes and reflect" (Flowers, 2019, p. 36).

Instructional coaching can increase the trust and open communication throughout the school community (Silva & Contreras, 2011). School-wide professional conversations can center on the students' behavioral, cognitive, and emotional engagement in the classroom (Knight, 2019). This deliberate communication can foster a collective focal point on student engagement, learning, and success (Silva & Contreras, 2011; Tschannen-Moran, B. et al., 2011).

Induction programs and organizations. Induction programs, including supervision of student teachers, professional organizations, training programs, and virtual workshops, provide opportunities to develop new skills for new teacher leaders (Helterbran, 2010; Rogers, 2005). Augustine-Shaw (2015) noted that first year educators and leaders benefitted from attending professional programs offered at their state and district levels. As part of a mentoring program, new educators receive an overview of the school, incorporated collaborative strategies, and honed the essential qualities as teacher leaders and school leaders (Augustine-Shaw, 2015; Helterbran, 2010).

Action research teams. The action research process has sparked professional reflection, change, and improvement of teacher leadership and possibly the students' experiences outside the classroom (Lee, Sachs & Wheeler, 2014). Within the school walls, action research impacts school improvement through a cycle of inquiry, such as asking a question, doing research, collecting data, discussing results, and initiating new practices (Lambert, 2002; Lee, Sachs & Wheeler, 2014). Through the process of action research, teacher leaders professionally share the process and results with their colleagues and school stakeholders (Lee, Sachs & Wheeler, 2014).

Professional learning communities (PLC). DuFour, DuFour, Eaker, and Many (2006,) have defined professional learning communities "as educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve" (p. 14). In professional learning communities, often known as PLCs, colleagues work collaboratively, learn from each other, focus on professional best practice, and ask questions (Lai & Cheung, 2015). The premise for professional learning communities is consistent, work-related learning for educators could result in improved learning for students (DuFour et al., 2006).

Team leaders of the professional learning community should discuss the shared leadership roles and desired team behaviors (Wilhelm, 2013). Team norms and skills include identifying professional development and determining expectations for collaboration (Vernon-Dotson & Floyd, 2012). One essential skill for collaboration is effective communication, such as managing difficult conversations and creating agendas for meetings (Vernon-Dotson & Floyd, 2012; Wilhelm, 2013). "If teachers and school principals are not involved in determining the needs of professional development in their schools, then it is unlikely that teachers will participate in the approach that does not align with their values" (Trilaksono & Purusottama, 2019, p. 53). Clearly, the advantages of teacher teams include sharing instructional methods and reflecting on the effectiveness of instructional practices (Vernon-Dotson & Floyd, 2012).

Vertical teams. Vertical teams, composed of a representative from each grade level in the school and the administrator, provide a means for increased collaboration, visionary planning, and distributed leadership among colleagues and formal school leaders (Conley & Muncey, 1999; Helterbran, 2010; Lambert, 2002). Using leadership skills, these representatives focus on their professional involvement in the school's instructional methods, curriculum

alignment, discipline procedures, and school improvement (Conley & Muncey, 1999; Lambert, 2002). In order to encourage professional growth and advance the school's achievement, vertical team members share their trust, perseverance, and open communication during the process of data analysis and the development of action plans (Helterbran, 2010; Lambert, 2002). In addition, these representatives form study groups to read and reflect on educational articles together, to pose difficult questions of the school community, to challenge current programs and traditions, and to glean a collective perception of the school's current reality and vision (Helterbran, 2010; Lambert, 2002). Research indicated that principals in rural schools affirmed the collaboration in their smaller schools. These principals remarked that "more intimate, familial professional cohorts present greater opportunity for the creation of collaborative professional cultures within the school - focused on teaching strategies, assessment literacy, and school-wide, data-driven decision-making" (Renihan & Noonan, 2009, p. 5).

School improvement. School-wide improvement can be impacted when each teacher has learned leadership skills and has worked toward school leadership teams and improvement (Frost & Harris, 2003). Professional training for teachers should include collaborative group skills and communication techniques (Lai, & Cheung, 2015). School-wide diversity training can also help with moving educational strategies to an action plan (Lai & Cheung, 2015). Having similar expectations of their colleagues, collaborative teachers have professionally analyzed the school's culture, the educational practices, and the students' achievement (Helterbran, 2010; Lai & Cheung, 2015). As a result, educators feel the collective sense of accomplishment with the results of continuous school improvement (Helterbran, 2010, Lai & Cheung, 2015).

Role of school districts. School administrators have viewed the hiring process as an opportunity to expand the leadership capacity in their schools (Helterbran, 2010). During the

interview process, school district leaders have included teacher leadership questions that focus on classroom independence, school-wide collaboration, academic excellence, and continuous school improvement (Helterbran, 2010). Following the interview process, school district leaders have developed a strategic plan to continuously invest in their teachers' leadership capacity and provide leadership training for them (Helterbran, 2010; Richardson, 2003; Rogers, 2005).

Table 1

Recommended Professional Development for Teacher Leaders

Professional Development	Definition
Pre-Service Training	Teacher education preparation programs integrate and develop leadership skills into pre-service training.
Informal Leadership Training	New teachers are encouraged to be risk-takers and challenge current views and the school's culture.
Mentoring	As a formal partnership, an experienced teacher guides and offers suggestions to the new teacher.
Instructional Coaching	A strategy to support teachers and leaders to improve student learning
Induction or Internship Programs	Programs are offered at the district and state level, such as programs to mentor student teachers and programs for new teachers to enhance the mentoring programs (solicit input from educators and reinforce leadership skills).
Action Research	Action Research is a process of asking questions, doing research, discussing results, and developing new educational practices.
Professional Learning Communities (PLC)	Professional Learning Communities (PLCs) are groups of collaborative educators who focus on the students' achievement.
Vertical Teams	Educators of multiple grade work together on school culture, academics, and leadership skills.
School Improvement	Educators focus on the students' achievement and school-wide improvement.
District-wide Training	The district office provides leadership training for the teachers, such as diversity training and communication techniques.

From the literature review, respected authors have recommended a multitude of professional development skills and strategies. Table 1 synthesizes that literature, indicating some of the major topics and strategies that teachers should master as emerging leaders. Financial constraints and time limitations make the acquisition of so many leadership skills even more daunting. As a result, administrators and teachers may not be making research-based decisions concerning the fundamental professional development for their teacher leaders. Essentially, administrators need to know which professional development opportunities are the most valued by both teachers and administrators for developing teacher leaders in the school. I hope my own research will better focus on the practical level for administrators and teachers. Based on my findings, both administrators and teachers should know where to focus their financial resources and time in order to develop the teachers' leadership skills in their schools.

Leadership Succession

Leadership succession is another reason for identifying and developing teacher leadership in the school community. The process of developing leaders is more work for the formal leaders (Kotter, 1995). Rogers (2005) noted that organizations depend on the identification, development, and formation of new leaders who can guide the organization into the future. Highly qualified principals plan for leadership succession or the formation of teachers to become formal leaders (Rogers, 2005). In identifying teachers with leadership potential, administrators should assist with the visibility of potential leaders to other formal leaders and plan effective leadership development, both informal and formal, for the potential leaders (Kirkpatrick & Locke, 1995; Kotter, 1995). Kotter (1995) emphasizes that formal leaders should be recognized and rewarded for developing a culture that advances teacher leaders.

Summary

Chapter Two established the foundation of current knowledge for distributed leadership in schools. Specifically, the essential topics included: the theoretical framework, teacher leaders' qualities and capacity, principal's perspective and role, challenges with distributed leadership, and essential professional development for teacher leaders. In the next chapter, the research methods of this study will be explained in detail.

CHAPTER THREE
RESEARCH METHODS

This chapter described the research methods used to answer the questions about the valued qualities of effective teacher leaders from the perspectives of the administrators and the viewpoints of the teachers. Additionally, administrators and teachers indicated the professional development that is provided and valued in schools to prepare teacher leaders to share leadership with the school's administration and to foster collaboration in professional learning communities. Administrators impacted school-wide leadership by promoting and building teacher leadership capacity in the school community. Chapter Three is organized into the following sections: purpose of the study, research questions, research design, population and sample, instrumentation, data collection procedures, data analysis, and limitations of the study.

Purpose of the Study

The purpose of this study was to survey the administrators and teachers to determine the most valued qualities for effective teacher leaders. The differences in what administrators value about teacher leaders' qualities were compared to the qualities that teachers value in the schools' teacher leaders. Then, the differences in values to build teacher leadership were compared among the teachers to all independent variables. From the administrators' survey, two open-ended questions solicited the administrators' perceptions about promoting and building teacher leadership capacity in their schools. The independent variables in my study were: the participants' roles in the school, either administrator or teacher; gender; years of seniority (at current school); total years of experience (in education); school setting (suburban, urban, rural), student population of the school, the socio-economic demographics of the student population, and the year of the National Blue Ribbon Award. The dependent variables were the measurement of the value given to a list of qualities of teacher leaders and the identification and

measurement of the value given to a list of professional development activities provided to teacher leaders on a survey instrument.

Research Questions

The research questions that guided my study were:

1. What qualities do administrators and teachers most value to build teacher leadership capacity in schools?
2. a.) What are the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?
3. According to administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?
4. a.) What are the differences in their perceptions of professional development according to administrators and teachers?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in their perceptions about professional development?
5. What are the perceptions of administrators about building teacher leadership capacity in their schools?

Research Design

The research design primarily represented a quantitative study with a slight qualitative element through two open-ended questions within the survey. The quantitative data was collected from a survey administrated via Qualtrics. A survey was selected because my research

study involves collecting numerical data, analyzing the data, and interpreting the data based on the differences in the responses from teachers and administrators (Creswell, 2014).

The first section of the survey focused on the leadership qualities and behaviors that teachers and administrators value as most important for teacher leadership. The differences in what teachers value about their teacher leaders in their school were compared to what administrators value in the school's teacher leaders. The means of teachers' responses were rank ordered to determine the top three most valued qualities of teacher leaders. Likewise, the administrators' means indicated the top three qualities of teacher leaders. Then the teachers' responses were compared to the administrators' responses. In analyzing the entire set of responses, I planned to use a t-test or one-way ANOVA to determine which of these most valued qualities were statistically significant when compared between the two groups. Due to the size of the sample, I was required to use non-parametric tests, such as the Kruskal-Wallis test or the Wilcoxon Signed Rank test.

The second quantitative design section of the survey focused on frequently utilized professional development activities and the value of each activity to prepare teacher leaders to share leadership with the school's administrators and foster collaboration in professional learning communities. The differences in what teachers determine as frequently offered professional development activities to teacher leaders in their school were compared to what administrators determine as frequently offered professional development activities to teacher leaders in their school. The means of the teachers' responses were compared to the means of the administrators' responses to determine the most frequently used professional development opportunities for teacher leaders.

Then, using a descriptive comparison, the teachers' most frequent professional development activities were compared to the most frequent professional development opportunities according to the administrators in National Blue Ribbon Schools. In analyzing the entire set of responses, the non-parametric tests determined which of the valued professional development activities were statistically significant. Continuing with non-parametric statistics, I used the Mann-Whitney post hoc test to determine the specific differences between three or more group means.

The third section of the survey listed two open-ended questions. Only administrators were required to explain how they promote and build teacher leadership capacity in their schools. The rationale for including these responses in an open-ended format was to provide additional insight from administrators.

For the qualitative section, I organized and prepared the data for analysis and then only completed first cycle coding process. First, I read and reviewed the data several times to glean a general sense of the information. I reflected on the respondents' overall meaning as well as their specific ideas. I utilized these questions, "What general ideas are the participants saying? What is the tone of the ideas? What is the impression of the overall depth, credibility, and use of the information? (Creswell, p. 197).

As themes would emerge, I jotted notes on the data, highlighted the recurring topics, and then created categories. In order to be consistent with the initial coding process, I created definitions for each category and utilized a code book during the examination of data. As the responses were sorted into categories, I also noted the positive or negative connotation.

Then, I set the information aside for several days. I reviewed the initial categories, reassigned the administrators' responses to other categories, created new categories, or combined

categories. The top two responses for each question were noted and exemplars were cited in my data analysis process. The comprehensive results are explained through narrative and tables in Chapter Four. As a check, my chairperson participated throughout the coding process.

Population and Sample

In 1982, the United States Department of Education instituted the National Blue Ribbon Award, the highest accolade awarded to public and non-public schools throughout the country (Jones & Gallagher, 2017). For non-public schools, only 50 schools may receive the award annually. To date, the National Blue Ribbon Award has been awarded to 988 Catholic (non-public) schools. This statistic was acquired by adding the 38 National Blue Ribbon Schools in 2017 and the 44 National Blue Ribbon Schools in 2018 to the number of Catholic schools awarded the National Blue Ribbon Award in the comprehensive list of National Blue Ribbon Schools from 1982 to 2016 in the *Best Practices of National Blue Ribbon Schools: A Collection from Distinguished Catholic Schools* (http://www.ncea.org, "National Blue Ribbon Award", Jones & Gallagher, 2017). As an interesting point, 149 schools have received the accolade more than once (http://www.ncea.org "National Blue Ribbon Award" Jones & Gallagher, 2017).

For this research study, only Catholic elementary schools that had been acknowledged with the National Blue Ribbon Award were incorporated in the population. An elementary school was defined as a school that has any combination of an elementary configuration, ranging from pre-school through eighth grade. High schools with a grade configuration of ninth through twelve grades were eliminated from the sample. In working from the most recent year of 2018 backwards to 2015, I compiled the sample by creating a spreadsheet of over 100 Catholic elementary schools that achieved the National Blue Ribbon Award.

Additionally, the current administrators, including both licensed principals and assistant principals, must have been working as Catholic school leaders prior to the year of the National Blue Ribbon Award in order to be included in the research study. For example, Annette Jones was the principal when the 2013 National Blue Ribbon was bestowed on St. Louis de Montfort Catholic School, Fishers, Indiana. Since 2015, Mr. Scott Stewart has taken the helm as principal. Because the principal during the National Blue Ribbon Award does not match the current principal, St. Louis de Montfort Catholic School was eliminated from the research study. The spreadsheet lists a column for the principal at the time of the National Blue Ribbon Award and the current principal for comparative purposes.

Once the National Blue Ribbon Schools were selected based on the continuity of employment of the principal, then the teachers within these schools were selected with the assistance of the school's administrator. As outlined in my communication with the principal, only licensed teachers who were employed prior to the year in which the National Blue Ribbon was awarded were permitted to participate in the research study. The rationale for the selection criteria of administrators and teachers was to create a research pool of administrators and teachers who were employed in conjunction with their school's National Blue Ribbon Award. The survey contained important demographic information about both administrators and teachers. The demographic information, such as the setting (urban, suburban, rural), school's student population, demographics of the student population (free and reduced lunch percentages), and the year of the National Blue Ribbon Award (2015, 2016, 2017, 2018) was pre-coded to describe the sample. Teachers in the sample may not accurately report this demographic information, so I pre-coded the information to ensure accuracy.

Conversational talking points. For the conversations with school superintendents to recruit their National Blue Ribbon Schools, I created a detailed protocol and list of talking points for my calls with each superintendent to ensure consistency in my explanation of the research study. The talking points included my name, brief personal introduction, explanation of the study, and permission to allow these schools to participate in the study. I will also share the list of schools in his or her Archdiocese or Diocese that qualified for this research study. Any superintendent could have declined my offer of conducting research in one or more of their schools, but all superintendents in this study were quite supportive and enthusiastic participants in the research study.

Instrumentation. Several instruments were used in this research study. The protocol for the structured survey, the reliability and validity information, and the open-ended responses in the survey were each discussed in detail. Each instrument added valuable perspectives in order to fully answer the research questions.

Survey. Administrators and teachers completed one survey with two sections. For the first section, the participants completed a Likert-scaled survey to identify the qualities of teacher leaders. The responses of the teachers were compared to the responses of the administrators. In the second section, teachers and principals completed a Likert-scaled survey to identify the professional development activities that were offered in their schools. For each professional development activity, the teachers and administrators completed a Likert-scaled survey item indicating the value of the professional development activity in order to prepare teacher leaders to share leadership with the school's administrators and foster collaboration in professional learning communities. The teachers' responses were then compared to the administrators' responses.

Reliability and validity. Based on the research study conducted by Dr. Benedicte Vanblaere and Dr. Geert Devos, the instrument that focused on leadership qualities provided reliability and validity information. For the leadership qualities section of the survey, the validity was determined by a group of experts completing the original survey, adapted from the "Professional Community Index" (Wahlstrom & Louis, 2008) in a 5-point Likert type scale. This survey was adapted with permission from Dr. Geert Devos (copy in Appendix J). Based on the teachers' feedback, the survey was updated and focused on the collective responsibility and reflective dialogue (Vanblaere & Devos, 2018, p. 99). The reliability for group-oriented leadership behaviors is .76 and for the development-oriented behaviors is .83 (Vanblaere & Devos, 2018, p. 99).

Based on the research study conducted by Dr. Jeffrey Wise, the instrument that focused on professional development activities was adapted from the United States Department of Education National Center for Educational Statistics' Schools and Staffing Survey (SASS) Principal Questionnaire (2011-2012) http://nces.ed.gov/surveys/sass/pdf/1112/SASS2A.pdf and the PBS TeacherLine National Survey of Teacher Professional Development (2005-2006) http://www.gtlcenter.org/sites. This survey instrument was adapted with permission from Dr. Jeffrey Wise (copy in Appendix K). The survey instrument was piloted with a small group of experts to address and measure the validity (Wise, 2017). A selected group of school administrators and curriculum directors contributed additional feedback, rating the instrument on its format, readability, and clarity of instructions (Wise, 2017). Dr. Wise attended to the maintenance of the validity and reliability of the items selected from the existing instruments as these items were used in his study (Wise, 2017). The reliability information is not available, but the author indicated that he completed further tests for reliability, which were not reported.

In my conversation with Dr. Kianre Eouanzoui, Ball State University Statistician, Research and Academic Effectiveness, in mid-October 2018, we discussed the proposed survey instrument for this research project. Since I am combining two surveys (teacher leadership qualities and professional development), Dr. Eouanzoui recommended that validity and reliability testing be conducted on this adapted survey instrument.

For the validity testing, experts in the areas of teacher leadership and professional development reviewed and commented on the survey instrument. The experts included an Assistant Superintendent (California), a National Distinguished Principal (Texas), the Director of Leadership Formation (Illinois), the Director of Catholic School Programs at a university (Indiana), and a superintendent (Virginia). The suggested recommendations from the experts have been noted in Appendix I.

For the reliability testing, nine administrators and 146 teachers were invited to take the survey for the purpose of determining the reliability for this survey instrument. My survey combined from the aforementioned surveys confirmed high internal consistency via the Cronbach's Alpha test. The results from the Cronbach's Alpha test was .94 for section I (teacher leader qualities), .84 for section II (provided professional development for teacher leaders), and .96 for section III (valued professional development for teacher leaders).

Open-ended responses. Administrators completed open-ended responses in the survey with two questions to describe how teacher leaders are identified and to explain how teacher leaders were involved in the school. These open-ended responses provided additional information enhancing the administrators' answers on the quantitative survey. The next section will explain the data collection procedures and the timeline for each task in the research study.

Data Collection Procedures

Each school in the research study was coded by year of the National Blue Ribbon Award, so that no identifiable information was shared about the school, administrators, or teachers. Due to the confidential nature of this project, all data and notes were secured in my home office. The electronic data was stored on a password protected computer. The hard copies of data were secured in a filing cabinet when not used. Possible participants were notified of the procedures used to ensure confidentiality of the data and notes. Also, possible participants had the option to decline involvement in the research study with no consequences for their decision.

First, I created a detailed chart of all Catholic elementary schools that achieved a National Blue Ribbon Award from 2015 to 2018. The essential data table categories were: Code for the School, Name of the School, Location of the School, National Blue Ribbon Award Year, Name of Principal (when National Blue Ribbon was awarded to the school), and Current Principal and Contact Information, Current Superintendent and Contact Information, Demographic Information (Free/Reduced Lunch Percentage), and School Setting (suburban, urban, rural). As I prepared for the research and recruited participants, I called the superintendents in the archdioceses or dioceses where the National Blue Ribbon Schools were located. In my conversation with the superintendent, I explained the research study and rationale for the selected schools in their archdiocese or diocese. I requested that the superintendent notify his or her schools, explaining that he or she granted permission to participate in the research study. Also, I requested signed permission on letterhead from the superintendent in order to conduct the research at his or her designated National Blue Ribbon Schools. Finally, I assured the superintendent that I would be contacting the schools via email to explain the study and

coding the schools to protect the confidentiality of teachers' and administrators' responses. The principals would not be contacted until I received the superintendent's permission.

After receiving permission from the respective superintendents, I contacted the principals via email inviting them to participate in this research study. These principals were asked to forward the information and survey to additional qualifying administrators, such as assistant principals and their qualifying teachers to also participate. An attached letter explained the purpose and rationale of the research, inclusion and exclusion criteria, procedures and duration, voluntary participation, and data confidentiality. Additionally, the letter addressed storage of data, benefits and risks of participation, participants' rights, and the researcher's contact information. The letter concludes with a consent question and a link to Qualtrics. Principals received a similar letter, consent question, and link to Qualtrics to share with the qualifying teachers.

I requested that the principal notify me of their intent to participate and to share the number of qualifying administrators and teachers who are participating in this research study. Upon receiving the information about the survey, the qualifying administrators and teachers had two weeks to complete the survey. If the qualifying administrators and teachers did not complete the survey within two weeks, then a follow-up email was sent, or phone call was made requesting their survey participation.

I continued to be available to answer administrators' or teachers' questions throughout the research process. Also, I monitored the results as these were posted in Qualtrics. I continued preparing for my proposal defense with my dissertation committee and then met the requirements for the Internal Review Board (IRB) at Ball State University. I analyzed the research results, both the quantitative section and the mini open-ended responses, and wrote

Chapters Four and Five of my dissertation. Then, I prepared for my defense with my dissertation committee at Ball State University.

Data Analysis

This section on data analysis explains how I analyzed the data with my rationale for the design. The participants, both teachers and principals, answered questions about teacher leadership qualities and professional development activities using Qualtrics. The responses were then entered into IBM's SPSS predictive analytics software. The data analyses for this research study included descriptive statistics and inferential statistics as well as first cycle qualitative analysis.

The method of descriptive statistical analysis enabled the researcher to "describe responses to each question in a database as well as determine overall trends and the distribution of data" (Creswell, 2012, p. 619). The data summary, using means, frequencies, and standard deviations, also summarized the demographics and compared the number of teacher and administrator respondents as well as the participants' role (administrator or teacher) in the school, gender, years of seniority (in their current school), years of experience (in education), year of the National Blue Ribbon Award, student population in the school, student demographic information (free and reduced lunch percentages), and school's setting (suburban, urban, rural).

The inferential statistics answered my research questions. Inferential statistics compared responses of teachers to the responses of the administrators. First, the researcher compared the differences in what teachers valued about teacher leaders' qualities compared to the qualities that administrators value in the school's teacher leaders. Secondly, the researcher compared the differences in what teachers value about teacher leaders' professional development activities in

their school compared to what administrators value in professional development activities for their teacher leaders.

The researcher used the *t*-Test "to determine whether two means are significantly different at a selected probability level" (Gay, 1996, p. 477). A *t*- test was used to analyze the differences in teacher leadership qualities between teachers and administrators and was also utilized to analyze the differences in professional development activities valued between teachers and administrators. The researcher determined that the *t*-test was an appropriate statistical approach because this research study compared the mean responses between two groups, teachers and administrators. Because some independent variables compared the mean responses among three or more groups, an ANOVA was the appropriate statistical approach. The method of inferential statistical analysis enabled the researcher to draw conclusions from the responses of the sample of Catholic elementary principals and teachers who achieved the National Blue Ribbon Award (Creswell, 2012).

For the last section, I asked the Catholic elementary administrators to answer two open-ended questions about teacher leaders. An open-ended response enables participants to elaborate on their viewpoints without the constriction of the researcher's closed items. The open-ended responses add a richness to the research study as the participants can share their responses and perspectives (Creswell, 2012). I then read and reflected on the responses, coded or organized, the themes of the responses, and synthesized the responses for this qualitative analysis (Creswell, 2010). Then, I thoughtfully considered the contents and incorporated the findings into the research paper (Saldana, 2009).

Limitations

For this research study, the limitations include the following points:

1. Given that approximately 35 Catholic schools are honored with the National Blue Ribbon Award annually, the research pool of schools is finite throughout the country.
2. The National Blue Ribbon Schools are not equally distributed among all 50 states in the United States.
3. Some participants may choose not to respond, which limited the sample size. As a result of the limited sample size, generalizability was also restricted.
4. Since the participants talked about events in the past, their perceptions may be biased (not as accurate) given the year that their school achieved the National Blue Ribbon Award.
5. It is unknown what has transpired in the schools since they won the National Blue Ribbon Award.
6. The assistant principal, or in rare cases, the principal may not hold an administrator's license due to the transition from teaching to administration. Preferably, all principals and assistant principals would have their formal academic training in administration and supervision completed and hold a valid administrator's license in their state of practice. Unlicensed administrators may have less understanding of leadership content than those who have been formally trained.
7. The two open-ended survey questions for administrators did not probe deeply enough to obtain negative comments about building teacher leadership capacity in schools. Future research could include interviews to acquire any negative results about building teacher leadership capacity in schools.
8. The schools' socio-economic status was not evenly distributed among the national sample of 98 schools. A total of 77 schools (78.5%) reported 5% or less for free or reduced lunch.

Summary

This chapter clearly outlined the essential aspects for the methods of conducting the research. The purpose of the study and the research questions provided the foundation for Chapter Three. The research design, population and sample, instrumentation, data collection, and data analysis completed the picture for a thorough research study. In the next chapter, the results of the study will be explained in detail.

CHAPTER FOUR
RESULTS

Chapter Four describes the results of my research study. The chapter begins with a review of my purpose statement and research questions. The descriptive results report specific data including the year of the National Blue Ribbon Award, school setting, student population, participants' role in the school, seniority at the current school, and total years of experience in education. Each research question is listed and, then is followed by the appropriate descriptive, inferential, or thematic data analysis.

Purpose of the Study

The purpose of this study was to survey the administrators and teachers to determine the most valued qualities for effective teacher leaders. The differences in what administrators value about teacher leaders' qualities were compared to the qualities that teachers value in the schools' teacher leaders. Then, the differences in values to build teacher leadership were compared among the teachers to all independent variables. From the administrators' survey, two open-ended questions solicited the administrators' perceptions about promoting and building teacher leadership capacity in their schools. The independent variables in my study were: the participants' roles in the school, either administrator or teacher; gender; years of seniority (at current school); total years of experience (in education); school setting (suburban, urban, rural), student population of the school, the socio-economic demographics of the student population, and the year of the National Blue Ribbon Award. The dependent variables were the measurement of the value given to a list of qualities of teacher leaders and the identification and measurement of the value given to a list of professional development activities provided to teacher leaders on a survey instrument.

Research Questions

The research questions that guided my study were:

1. What qualities do administrators and teachers most value to build teacher leadership capacity in schools?
2. a.) What are the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?
3. According to administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?
4. a.) What are the differences in their perceptions of professional development according to administrators and teachers?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in their perceptions about professional development?
5. What are the perceptions of administrators about building teacher leadership capacity in their schools?

Descriptive Results

"Descriptive statistics describe data… so that readers have the background necessary to make informed decisions about the results" (Keller, 2016, p. 53). Throughout the United States, 101 Catholic National Blue Ribbon Schools awarded from 2015-2018 qualified to participate in this research study. Ninety-eight schools participated and three schools declined involvement in this research study. Also, as a qualification, these 98 schools had the same principal who was at the helm during the year of the National Blue Ribbon Award. Teachers who participated in the

study must have been employed at the school at least on year prior to the National Blue Ribbon designation.

Year of the National Blue Ribbon Award. In Table 2, the number of responding administrators and educators was fairly balanced from 2016 through 2018. To qualify for participation in this study, the administrators and teachers must have been employed at the school one year prior to the National Blue Ribbon Award and still be employed as an administrator or teacher in the school. Given the criteria to participate in this study, there were 101 schools that qualified to participate, but 3 declined, resulting in a total sample size of 98 schools. Administrators from 38 schools participated in this study (38 of 98 schools or 38.8%) and teachers from 52 schools completed the survey (52 of 98 schools or 53%). However, I was unable to calculate a more exact response rate as administrators failed to consistently report the number of possible administrators and teachers for this research study.

Table 2

Year of the National Blue Ribbon Award

	Administrator (Principal or Assistant Principal)	Teacher	Frequency	Percent
2015	7	30	37	18.6
2016	12	44	56	28.1
2017	13	35	48	24.1
2018	15	43	58	29.1
Total	47	152	199	100.0

The most responses were submitted by 2018 awardees and the least responses from 2015 awardees. I would expect the greatest number of responses (n=58) from the most current awardees as most administrators and teachers were still employed at their award-winning

schools. Likewise, I would expect the least number of responses from administrators (*n*=7) in 2015 due to the administrators' mobility rates.

Setting. In Table 3, among the Catholic National Blue Ribbon schools, the majority of Catholic school leaders and educators (69.3%, *n*=199) were located in a suburban setting. According to the *United States Catholic Elementary and Secondary School 2018-2019: The Annual Statistical Report on Schools, Enrollment and Staff* (2019, p. 9), Catholic schools had suburban location (40.1%), urban location (38.1%) and rural location (21.8%) throughout the United States. The distribution of the Catholic National Blue Ribbon Award is not represented proportionately among suburban, urban and rural settings.

Table 3

Setting

	Frequency	Percent
Suburban	138	69.3
Urban	44	22.1
Rural	17	8.5
Total	199	100.0

Free and reduced lunch. Table 4 indicated that 98 schools participated in this national research study. Nearly half of the schools (45) reported 0% free or reduced lunch, and 77 schools reported less than 5% free and reduced lunch percentages. Therefore, I was not able to complete inferential statistics on free and reduced lunch percentages.

Table 4

Percentage of Free and Reduced Lunch

Percentage of Free and Reduced Lunch	Number of Schools
0%	45
1-5%	32
6-10%	18
Over 10%	3

Student population. Table 5 illustrated that schools with smaller student populations accounted for over 80% of the schools. In reviewing the results, the sample size should be noted in reviewing the results about qualities of teacher leaders and the provided and valued professional development to build teacher leadership capacity. In contrast, only 12% of the schools had a population of over 900 students.

Table 5

Student Population

Number of Students	Frequency	Percent
1-300	66	33.2
300-600	94	47.2
601-900	15	7.5
900+	24	12.1
Total	199	100.0

Position at the school. For this research study, Table 6 illustrated that three times as many teachers answered the survey compared to administrators. Due to the unequal sample sizes, non-parametric tests, such as the Kruskal-Wallis and Mann-Whitney post hoc tests, were utilized to analyze the data.

Table 6

Position at the School

Position	Frequency	Percent
Administrator (Principal or Assistant Principal)	47	23.6
Teacher	152	76.4
Total	199	100.0

Gender of the respondents. In this research study as noted in Table 7, a majority of the respondents (84.4%) were female. This statistic is not surprising as the national statistics show

that 76.6% of Catholic school staff were female (McDonald, 2019, p. 3). Therefore, I was not able to complete inferential statistics on gender.

Table 7

Gender of the Respondents

	Administrator (Principal or Assistant Principal)	Teacher	Frequency	Percent
Male	18	13	31	15.6
Female	29	139	168	84.4
Total	47	152	199	100.0

Seniority at current school. In Table 8, the percentages of respondents were quite balanced ranging from 16% to 21% in the five categories. Teachers with 0-5 years of experience represented 21.6% of the schools' leadership and instructional staff. Similarly, teachers with over 20 years of experience represented 20.6% of the schools' leaders and educators.

Table 8

Seniority at Current School

	Administrator (Principal or Assistant Principal)	Teacher	Frequency	Percent
0-5 years	10	32	42	21.6
6-10 years	10	33	43	21.6
11-15 years	6	35	41	20.6
16-20 years	11	21	21	16.1
Over 20 years	10	31	31	20.6
Total	47	152	199	100.0

Total years of experience in education. In this research study, Table 9 showed the percentages for experience in education were widespread, ranging from 7% for teachers with 0-5 years of experience to 46.7% for teachers with over 20 years of experience. According to the National Association of Independent Schools, the statistics showed a higher percentage (19%) of

teachers having 0-5 years of experience and a lower percentage (25%) of teachers having over 20 years of experience (https://www.nais.org). Similarly, the United States Department of Education, National Center for Educational Statistics calculated 10% of teachers had 0-3 years of experience and 22% of teachers had over 20 years of experience (http://www.nces.ed.gov). The next section reports the data analysis results and is organized by research question.

Table 9

Total Years of Experience in Education

	Administrator (Principal or Assistant Principal)	Teacher	Frequency	Percent
0-5 years	0	14	14	7.0
6-10 years	2	20	22	11.1
11-15 years	4	26	30	15.1
16-20 years	5	35	40	20.1
Over 20 years	36	57	93	46.7
Total	47	152	199	100.0

Research Question 1: What qualities do teachers and administrators most value to build teacher leadership capacity in schools?

For research question 1, factor analysis was first considered as an option to analyze this data set to determine the valued qualities to build teacher leadership capacity according to administrators and teachers. From the UCLA Institute for Digital Research & Education, "The basic assumption of factor analysis is that for a collection of observed variables there are a set of *underlying* variables called factors (smaller than the observed variables) that can explain the interrelationships among those variables (http://stats.idre.ucla.edu)." However, due to imbalance of the number of administrators (n = 47) to the number of teachers (n = 152), factor analysis could not be used for this data set. Therefore, my only option was to use descriptive statistics for this question and the subsequent question three for the same imbalance.

Valued qualities to build teacher leadership capacity. Using descriptive statistics, the administrators' and teachers' responses were combined into one data set (n = 199). The means and standard errors were calculated for the questions 7-19 in the survey. "Variability in the sample mean is measured in terms of sample errors or the gap between the population and sample results (Rumsey, 2010, p. 58)." Additionally, the descriptive analysis reported the confidence range, which provided reassurance to me about which means did vary. Thus, it became evident that some qualities were more valued than others.

The administrators and teachers were asked via a survey which qualities are most valued to build teacher leadership capacity in their schools (results on Table 10). The mean data were arranged from highest to lowest mean. The "confidence interval (95% for lower and upper bound) is used for the purpose of estimating a population parameter (a single number that describes a population) by using statistics…" (Rumsey, p. 69). "Therefore, we can say that for any one confidence interval constructed, we are 95% confident that the true population mean lies between the lower and upper bound (www.oregonstate.edu)."

Although the means in Table 10 were arranged from the highest mean to the lowest mean, I could not determine a ranking of the valued qualities using inferential statistical analysis. Therefore, I am simply reporting responses and confidence intervals. Based on the responses, I am confident that the group of designated top valued qualities are higher than the bottom valued qualities because the confidence interval does not overlap in the upper and lower bounds.

Differences in the valued qualities in the middle are unknown because these valued qualities overlap with the confidence intervals. Because I did not know if any mean was truly statistically different from another, I examined the confidence intervals, 95% for the lower and upper bounds. Specifically, I compared those at the lower end (3.80 to 4.05) of the confidence

Table 10

Valued Qualities to Build Teacher Leadership Capacity

Qualities	Mean	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound
Some teachers in this school are considered teacher leaders.	4.48	.043	4.39	4.56
I consider myself a leader of teachers.	4.36	.049	4.26	4.45
In my school, teachers take an informal teacher leader role.	4.31	.044	4.22	4.40
In my school, teachers who are considered informal leaders, coach and assist new teachers.	4.29	.051	4.19	4.39
In my school, teachers who are considered informal leaders, promote an atmosphere of openness and trust within the faculty.	4.28	.049	4.18	4.37
In my school, teachers who are considered informal leaders, encourage horizontal alignment and coordination between teachers of the same grade level.	4.21	.049	4.11	4.30
In my school, teachers who are considered informal leaders, monitor academics and social development of students.	4.19	.057	4.07	4.30
In my school, the process of building teacher leadership is consideration very important.	4.14	.059	4.02	4.25
In my school, teachers who are considered informal leaders, actively seek out training and professional development opportunities (internal and external) for colleagues and themselves.	4.12	.055	4.01	4.23
In my school, teachers who are considered informal leaders, encourage vertical alignment and coordination among teachers of different grades.	4.10	.052	4.00	4.20
In my school, teachers who are considered informal leaders, organize meetings (planning, preparing, chairing, monitoring reports).	4.05	.066	3.92	4.17
In my school, teachers who are considered informal leaders, assist teachers in finding and developing the most appropriate teaching methods and materials.	4.04	.060	3.92	4.15
In my school, teachers who are considered informal leaders, keep track of annual planning (communication of information regarding upcoming events).	3.92	.062	3.80	4.05

intervals and separated the confidence intervals without overlapping into top and bottom groups of professional development activities. For example, *Annual Planning* was categorized into the bottom group because it had a confidence interval of LCI 3.80 to 4.05 UCI. *Considered Teacher Leaders* was categorized into the top group because it has a confidence interval of LCI 4.39 to 4.59 UCI. As a result, with 95% confidence the top group is statistically higher than the bottom group.

Section summary. The qualities most valued to build teacher leadership capacity in schools (top group) included: *identifying self and others as teacher leaders, taking an informal teacher leadership role, coaching and assisting new teachers*, and *promoting an atmosphere of openness and trust within the faculty*. On the other hand, the three qualities least valued to build teacher leadership capacity (bottom group) included *organizing meetings, finding and developing the most appropriate teaching methods and materials*, and *tracking annual planning*. Using bold and italicized font, the top group and the bottom group are indicated on Table 10.

Research Question 2a: What are the differences in what teachers compared to what administrators value about the qualities to build teacher leadership in their schools?

In Table 11, using the Wilcoxon Signed Ranks Test, three qualities were determined as statistically significant according to the administrators' and teachers' responses when building teacher leadership capacity. Statistically significant is "the likelihood that a relationship between two or more variables is caused by something other than chance" (Kenton, 2019, para. 1).

One quality that was statistically significant (p=.029) was the response to the survey question: *In my school, teachers who are considered informal leaders assist teachers in finding and developing the most appropriate teaching methods and materials*. The mean for administrators was 4.16 and the mean for teachers was 3.94. Administrators believe that this

leadership quality is happening at higher levels than teachers do in their schools. Administrators seem to have a more inflated perception of their schools than teachers do. For this research question #2a, both groups agree that this leadership quality of finding and developing appropriate methods and materials occurs, but administrators believe that this assistance is more prevalent than teachers believe.

Another similar example is stated further in this document (research question 4a). Administrators believe that the effectiveness of professional learning communities is occurring at higher levels than teachers do in their schools. From both research questions 2a and 4a, it appears that administrators believe that some leadership qualities or professional development activities are more widespread than teachers do. Perhaps, further communication, collaboration, and training would more accurately align the viewpoints of the administrators and teachers regarding leadership qualities and professional development activities in their schools.

Table 11

Significant Differences about Qualities According to Administrators and Teachers

Quality	**Mean for Administrators**	**Mean for Teachers**	**Significance**
Identify Teacher Leaders	4.68	4.23	.009**
Determine the Importance of the Process of Building Teacher Leadership	4.29	3.84	.049*
Assist Teachers in finding and developing the most appropriate teaching methods and materials	4.16	3.94	.029*

Note. * $p \leq 0.05$ ** $p \leq 0.01$

Another quality that was statistically significant was the response to the survey question: *In my school, the process of building teacher leadership is considered… (very important to not important on a Likert scale).* The mean for administrators was 4.29 and the mean for the teachers was 3.84. Through their responses, administrators indicated that the process of building teacher leadership is considered more important than the teachers' responses. The statistical significance of p=.049 indicates that both administrators' and teachers' responses are statistically different.

The administrators' and teachers' responses regarding teacher leadership generated statistical significance. The survey questions were *I consider myself a leader of teachers (asked of administrators)* and *I consider myself a teacher leader,* which was asked of teachers. The mean for administrators was 4.68 and the mean for teachers was 4.23. Administrators believe that teacher leadership occurs at higher levels than teachers do at their schools. This result is statistically significant at p=.009.

Research Question 2b: When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?

As a reminder, the independent variables for this study included: the year of the National Blue Ribbon award, school setting (suburban, urban, rural), student population, role at the school (either administrator or teacher), gender, seniority (at current school), and total years of experience in education. The responses for this question only include data with statistically significant results, as provided by the data tables and brief explanations. Appendix N provides an example of a full table with all the data analysis related to gender, even data that was not statistically significant. Each of the subsections below compare an independent variable to a

survey question (which comprise the dependent variables) when the results were statistically significant.

On the advice of Ball State University's statistician after running Levine's test to assess the equality of variances, to assess the equality of variances most of the data was not normal distributed and was also affected by the sample size. For example, the population for teachers is 152 and the sample size for administrators is 47. When further reducing *n* in categories like *years of experience,* some categories included small *n* values. Due to these considerations with the possibility of error creeping in, Dr. Kianre Eouanzoui, Ball State University's statistician, advised me to utilize non-parametric statistics for the entire data analysis. "Non-parametric tests are the broad classification of statistical procedures that do not rely on assumptions about the shape or parameters of the underlying population distribution" (Hoskins, p. 4, para. 13). First, the Kruskal-Wallis test was run to determine initial significance. "The Kruskal-Wallis test is a non-parametric version of ANOVA. The test works on two or more independent samples, which may have different sizes" (www.docs.scipy.org, 2019, para. 1).

Next, post hoc testing was conducted. "Post Hoc tests allow researchers to locate the specific differences between three or more group means when an analysis of variance (ANOVA) test is significant" (www.methods.sagepub.com, 2018, para. 1). Continuing with non-parametric statistics, I used the Mann-Whitney post hoc test to determine the specific differences between three or more group means. "The Mann-Whitney test is the true nonparametric counterpart of the t-test and gives the most accurate estimates of significance, especially when sample sizes are small…" (www.sciencedirect.com, 2017, para. 1).

Gender and horizontal alignment. Table 12 refers to the question: *In my school, teachers who are considered informal leaders encourage horizontal alignment and coordination*

between teachers of the same grade level. The gender of the participants was statistically significant (p=.015) using Mann-Whitney test. The female teachers (M=4.22) indicated that teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than male teachers (M=3.77) in their National Blue Ribbon schools.

Table 12

Gender and Horizontal Alignment

Gender	*n*	Mean	Asymp. Sig.
Male	13	3.77	.015*
Female	139	4.22	.015*
Total	152	n/a	n/a

Note. * $p \leq 0.05$ using the Mann-Whitney test

Setting and horizontal alignment. Table 13 refers to the question: *In my school, teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level.* The setting is statistically significant (p=.037) when using the Kruskal-Wallis test. The mean (M= 4.28) of 105 teachers in suburban settings was the highest, followed by the mean (M=4.00) of 35 teachers in urban settings. The 12 teachers in rural settings had the lowest mean (M=3.92). However, I was not able to determine which of these means were statistically different from others in the setting categories until conducting post hoc testing.

When the Mann-Whitney test was used, a statistically significant difference was found between teachers in the suburban settings and teachers in the urban settings (p=.040). The teachers in suburban settings (M=4.28) reported that teachers who are informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than urban teachers (M=4.00) reported. For this output, the Kruskal-Wallis test was significant (p=.037) and the Mann-Whitney post hoc test was significant (p=.040), but the significance

values that have been adjusted by the Bonferroni correction for multiple tests were not significant. (The university's statistician, Dr. Kianre Eouanzoui, recommended that this be reported as a statistically significant finding with the addition of the above note that significance was not confirmed through the Bonferroni post hoc.)

Table 13

Setting and Horizontal Alignment

Setting	Significance
Rural-Urban	.637
Rural-Suburban	.066
Suburban-Urban	.040*

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using the Mann-Whitney Test

Setting and atmosphere. Table 14 refers to the question: *In my school, teachers who are considered informal leaders promote an atmosphere of openness and trust within the faculty.* The setting is statistically significant (p=.016) using the Kruskal-Wallis test. The mean (M=4.67) of 12 teachers in rural settings was the highest, followed by the mean (M=4.29) of 105 teachers in suburban settings. The 35 teachers in the urban settings had the lowest mean (M=4.09).

Table 14

Setting and Atmosphere

Setting	Significance
Urban-Suburban	.054
Urban-Rural	.006*
Suburban-Rural	.070

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using the Mann-Whitney Test

However, I was not able to determine which of these means were statistically different from others in the setting categories until conducting post hoc testing. When the Mann-Whitney test was used, a statistically significant result was found between the rural and urban settings (p=.006). In rural settings, teachers (M=4.67) reported that teachers who are informal leaders

promote a higher level of openness and trust within the faculty than teachers (M=4.09) in the urban settings.

Student population and horizontal alignment. Table 15 refers to the question: *In my school, teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level.* The student population is statistically significant (p=.018) using the Kruskal-Wallis test. The mean (M=4.36, n=22) for student population (900 or more students) is the highest, followed the mean (M=4.27, n=73) for student population of 301-600 students and the mean (M=4.13, n=8) for student population of 601-900 students. The lowest mean (M=3.98, n=49) is the student population of 1-300 students.

Table 15

Student Population and Horizontal Alignment

Student Population	Significance
1-300 and 601-900	.569
1-300 and 301-600	.008*
1-300 and 900+	.008*
601-900 and 301-600	.461
601-900 and 900+	.258
301-600 and 900+	.429

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was reported between the student population of 301-600 students and the student population of 1-300 students (p=.008). The teachers (M=4.27) with a student population of 301-600 students believe that teachers who are informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than teachers (M= 3.98) with a student population of 1-300 students. Additionally, a statistically significant result was found between the student population of 900+ students and the student population of 1-300 students (p=.008). The teachers (M=4.36) with a student population of 900+ students believe that teachers who are informal

leaders encourage horizontal alignment and coordination between teachers of the same grade level more than teachers (M=3.98) with a student population of 1-300 students.

Seniority (years at current school) and myself as a leader of teachers. Table 16 refers to the question: *I consider myself a leader of teachers*. The seniority (years of experience at their current school) is statistically significant (p=.020) using the Kruskal-Wallis test. The mean (M=4.46) of 35 teachers with 11-15 years of seniority was the highest, followed by the mean (M=4.33) of 21 teachers with 16-20 years of seniority, and the mean (M=4.32) of 31 teachers with over 20 years of seniority. The 32 teachers with 0-5 years of seniority had the lowest mean (M=3.84). The mean (M=4.27) of the 33 teachers with 6-10 years of seniority came before the teachers with 0-5 years of seniority.

Table 16

Seniority (Years at Current School) and Myself as a Leader of Teachers

Seniority	Significance
0-5 years to 6-10 years	.030*
0-5 years to over 20 years	.017*
0-5 years to 16-20 years	.018*
0-5 years to 11-15 years	.001**
6-10 years to over 20 years	.802
6-10 years to 16-20 years	.642
6-10 years to 11-15 years	.314
Over 20 years to 16-20 years	.813
Over 20 years to 11-15 years	.462
16-20 years to 11-15 years	.678

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was computed, a statistically significant difference was cited among teachers who considered themselves as “leaders of teachers” having 6-10 years of seniority compared to teachers with 0-5 years of seniority (p=.030). Teachers with 6-10 years of seniority (M=4.46) considered themselves as leader of teachers more than teachers with 0-5 years of seniority (M=3.84). Another statistically significant difference was found among

teachers who considered themselves as "leader of teachers" having over 20 years of seniority compared to teachers with 0-5 years of seniority (p=.017). Teachers with over 20 years seniority (M=4.32) reported themselves "leader of teachers" more than teachers with 0-5 years of seniority (M=3.84).

Additionally, a statistically significant difference was reported among teachers who considered themselves as "leaders of teachers" having 16-20 years of seniority compared to teachers with 0-5 years of seniority (p=.018). Teachers with 16-20 years of seniority (M=4.33) considered themselves "leader of teachers" more than teachers with 0-5 years of seniority (M=3.84). Lastly, a statistically significant difference was found among teachers who considered themselves as "leader of teachers" having 11-15 years of seniority compared to teachers with 0-5 years of seniority (p=.001). Teachers with 11-15 years of seniority (M=4.46) considered themselves "leader of teachers" more than teachers with 0-5 years of seniority (M=3.84).

Total years of experience and myself as a leader of teachers. Table 17 refers to the question: *I consider myself a leader of teachers.* The total years of experience (at other schools in addition to the current school) is statistically significant (p=.030) using the Kruskal-Wallis test. The mean (M=4.44, n=57) of teachers with over 20 years of experience is the highest, followed by the mean (M=4.26, n=35) of teachers with 16-20 years and the mean (M=4.12, n=26) of teachers with 11-15 years of experience. The teachers with 0-5 years of experience had the lowest mean (M=3.93, n=14). The mean (M=4.05, n=20) of teachers with 6-10 years of experience came just before the teachers with 0-5 years of experience.

When the Mann-Whitney post hoc test was applied, a statistically significant difference between teachers with over 20 years of experience and teachers with 0-5 years of experience

(p=.009). Teachers (M=4.44) with over 20 years of experience indicated that they considered themselves as "teacher leaders" more than teachers (M=3.93) with 0-5 years of experience. Another statistically significant result was found between the teachers with over 20 years of experience and teachers with 11-15 years of experience (p=.016). Teachers (M=4.44) with over 20 years of experience reported that they considered themselves as "teacher leaders" more than teachers (M=4.12) with 11-15 years of experience. For this output, the Kruskal-Wallis test is significant (p=.030) and the Mann-Whitney post hoc test is significant (p=.009; p=.016), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. As advised by Dr. Eouanzoui (see explanation above) I reported this as a statistically significant finding.

Table 17

Total Years of Experience and Myself as a Leader of Teachers

Total Years of Experience	Significance
0-5 years to 11-15 years	.513
0-5 years to 6-10 years	.270
0-5 years to 16-20 years	.203
0-5 years to over 20 years	.009**
11-15 years to 6-10 years	.572
11-15 years to 16-20 years	.473
11-15 years to over 20 years	.016*
6-10 years to 16-20 years	.949
6-10 years to over 20 years	.123
16-20 years to over 20 years	.075

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using Mann-Whitney Test

Total years of experience and teacher leaders. Table 18 refers to the question: *Some teachers in this school are considered teacher leaders.* The total experience is statistically significant (p=.037) using the Kruskal-Wallis test. The mean (M=4.71, n=14) of teachers with 0-5 years of experience was the highest, followed by the mean (M=4.58, n=57) of teachers with over 20 years of experience and the mean (M=4.40, n=20) of teachers with 6-10 years of

experience. The teachers with 16-20 years had the lowest mean (M=4.29, *n*=35). The mean (M=4.38, *n*=26) of the teachers with 11-15 years of experience came just before the teachers with 16-20 years of experience.

Table 18

Total Years of Experience and Teacher Leaders

Total Years of Experience	Significance
16-20 years to 11-15 years	.677
16-20 years to 6-10 years	.317
16-20 years to over 20 years	.011*
16-20 years to 0-5 years	.019*
11-15 years to 6-10 years	.561
11-15 years to over 20 years	.063
11-15 years to 0-5 years	.056
6-10 years to over 20 years	.303
6-10 years to 0-5 years	.187
Over 20 years to 0-5 years	.520

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found between teachers with over 20 years of experience and teachers with 16-20 years of experience (*p*=.011). Teachers (M=4.58) with 20 years of experience indicated that other teachers in their school were considered teacher leaders more than teachers (M=4.29) with 16-20 years of experience. Another statistically significant result occurred between teachers with 0-5 years of experience and teachers with 16-20 years of experience (*p*=.019). Teachers (M=4.71) with 0-5 years of experience indicated that other teachers in their school were considered teacher leaders more than teachers (M=4.29) with 16-20 years of experience. For this output, the Kruskal-Wallis test is significant (*p*=.037) and the Mann-Whitney post hoc test is significant (*p*=.011; *p*=.019), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. As indicated earlier, it was decided to list this as a statistically significant finding.

Total years of experience and the process of building teacher leadership. Table 19 refers to the question: *In my school, the process of building teacher leadership is considered…very important to not important on the survey's Likert scale).* The total experience is statistically significant (p=.028) using the Kruskal-Wallis test. The mean (M=4.30, n=57) of teachers with over 20 years of experience was the highest, followed by the mean (M=4.21, n=14) of teachers with 0-5 years of experience and the mean (M=3.85, n=20) of teachers with 6-10 years and 11-15 years of experience (n=26). The teachers with 16-20 years had the lowest mean (M=3.80, n=35).

Table 19

Total Years of Experience and the Process of Building Teacher Leadership

Total Years of Experience	Significance
16-20 years to 6-10 years	.875
16-20 years to 11-15 years	.472
16-20 years to 0-5 years	.152
16-20 years to over 20 years	.004**
6-10 years to 11-15 years	.648
6-10 years to 0-5 years	.248
6-10 years to over 20 years	.028*
11-15 years to 0-5 years	.421
11-15 years to over 20 years	.067
0-5 years to over 20 years	.574

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found between teachers with over 20 years of experience and teachers with 16-20 years of experience (p=.004). Teachers (M=4.30) with over 20 years of experience indicated that the process of building teacher leadership was more important in their schools than teachers (M=3.80) with 16-20 years of experience. Another statistically significant result occurred between teachers with over 20 years of experience and teachers with 6-10 years of experience (p=.028). Teachers (M= 4.30) with over 20 years of experience indicated that the process of building teacher

leadership was more important in their schools than teachers (M=3.85) with 6-10 years of experience.

Total years of experience and informal leadership role. Table 20 refers to the question: *In my school, teachers take on an informal teacher leadership role.* The total experience is statistically significant (p=.014) using the Kruskal-Wallis test. The mean (M=4.64, n=14) of teachers with 0-5 years of experience was the highest, followed by the mean (M=4.47, n=57) of teachers with over 20 years and the mean (M=4.35, n=20) of teachers with 6-10 years of experience. The teachers with 16-20 years had the lowest mean (M=4.11, n=35). The mean (M=4.31, n=26) of the teachers with 11-15 years of experience came just before the teachers with 16-20 years of experience.

Table 20

Total Years of Experience and Informal Leadership Role

Total Years of Experience	Significance
16-20 years to 11-15 years	.292
16-20 years to 6-10 years	.164
16-20 years to over 20 years	.004**
16-20 years to 0-5 years	.004**
11-15 years to 6-10 years	.693
11-15 years to over 20 years	.135
11-15 years to 0-5 years	.055
6-10 years to over 20 years	.362
6-10 years to 0-5 years	.137
Over 20 years to 0-5 years	.344

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found between teachers with over 20 years of experience and teachers with 16-20 years of experience (p=.004). Teachers (M=4.47) with over 20 years of experience reported that teachers took on an informal leadership role more than teachers (M=4.11) with 16-20 years of experience. Another statistically significant result occurred between teachers with 0-5 years of experience and

teachers with 16-20 years of experience (p=.004). Teachers (M=4.64) with 0-5 years of experience indicated that teachers took on an informal leadership role more than teachers (M=4.11) with 16-20 years of experience.

Total years of experience and professional development opportunities. Table 21 refers to the question: *In my school, teachers who are considered informal leaders actively seek out training and professional development opportunities (internal and external) for colleagues and themselves.* The total experience is statistically significant (p=.004) using the Kruskal-Wallis test. The mean (M=4.37, n=57) of teachers with over 20 years of experience was the highest, followed by the mean (M=4.21, n=14) of teachers with 0-5 years and the mean (M=4.04, n=26) of teachers with 11-15 years of experience. The teachers with 16-20 years had the lowest mean (M=3.80, n=35). The mean (M=3.90, n=20) of the teachers with 6-10 years of experience came just before the teachers with 16-20 years of experience.

Table 21

Total Years of Experience and Seek Professional Development Opportunities

Total Years of Experience	Significance
16-20 years to 6-10 years	.499
16-20 years to 11-15 years	.358
16-20 years to 0-5 years	.129
16-20 years to over 20 years	.000**
6-10 years to 11-15 years	.871
6-10 years to 0-5 years	.404
6-10 years to over 20 years	.023*
11-15 years to 0-5 years	.465
11-15 years to over 20 years	.021*
0-5 years to over 20 years	.311

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found between teachers with over 20 years of experience and teachers with 16-20 years of experience (p=.000). Teachers (M=4.37) with over 20 years of experience reported that informal teacher

leaders actively sought out training and professional development more than teachers (M=3.80) with 16-20 years of experience. Another statistically significant result occurred between teachers with over 20 years of experience and teachers with 6-10 years of experience (p=.023).

Teachers (M=4.37) with over 20 years of experience indicated that informal teacher leaders actively sought out training and professional development more than teachers (M=3.80) with 6-10 years of experience. Lastly, a statistically significant result was found between teachers with over 20 years of experience and teachers with 11-15 years of experience (p=.021). Teachers (M=4.37) with over 20 years of experience reported that informal teacher leaders actively seek out training and professional development more than teachers (M=4.04) with 11-15 years of experience.

Research Question 3: According to administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?

For research question 3, a statistical tool was needed to differentiate the data of the provided and valued qualities to build teacher leadership capacity according to administrators and teachers. Factor analysis was first considered as the statistical tool to analyze this data. However, due to imbalance of the number of administrators (n = 47) compared to the number of teachers (n = 152), factor analysis did not work for this data set. Therefore, my only option was to use descriptive statistics for this question, as I did similarly for the first research question

Administrators' responses on professional development (frequency). The administrators were asked via a survey which professional development was provided (frequency) in their schools (results shown in Table 22). Although the means in Table 22 were arranged from the highest mean to the lowest mean, I could not determine the ranking of

Table 22

Administrators' Responses: Provided Professional Development (Frequency)

Professional Development	Mean	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound
Mentoring	3.86	.135	*3.58*	*4.13*
Teacher Groups (Vertical and Horizontal)	3.82	.149	*3.51*	*4.12*
Teacher Committee or Task Force	3.59	.140	*3.30*	*3.87*
Workshops	3.47	.139	*3.19*	*3.75*
Observations other Teachers' Classes	3.44	.166	*3.11*	*3.78*
Archdiocesan or Diocesan Training	3.42	.175	*3.07*	*3.78*
Online Courses or Modules	3.40	.123	*3.15*	*3.65*
Instructional Coaching	3.35	.168	3.01	3.69
Conferences	3.33	.173	2.98	3.68
Professional Learning Community (PLC)	3.30	.197	2.90	3.70
College Courses	2.72	.164	*2.39*	*3.05*
Internships	2.47	.186	*2.10*	*2.85*
Completion of National Board Certification	2.33	.288	*1.87*	*2.79*
Individual or Group Research Project	2.29	.180	*1.92*	*2.66*

Note. Using bold and italicized font, the top group and the bottom group are indicated on Table 22.

professional development using inferential statistical analysis. Therefore, I am simply reporting responses and confidence intervals. Based on the responses, I am 95% confident that the top professional development activities are higher than the bottom professional development activities because the confidence interval does not overlap in the upper and lower bounds.

Because I did not know if any mean was truly statistically different from another, I examined the confidence intervals, 95% for the lower and upper bounds. Specifically, I

compared those at the lower end (1.92 to 2.66) of the confidence intervals and separated the confidence intervals without overlapping into top and bottom groups of professional development activities. For example, *Individual or Group Research Project* was categorized into the bottom group because it had a confidence interval of LCI 1.92 to 2.66 UCI. *Mentoring* was categorized into the top group because it has a confidence interval of LCI 3.58 to 4.13 UCI. As a result, with 95% confidence the top group is statistically higher than the bottom group.

According to administrators, the most provided (frequency) professional development, with 95% confidence, included *Mentoring, Teacher Groups (vertical and horizontal), Teacher Committee or Task Force, Workshops, Observations Other Teachers' Classes, Archdiocesan or Diocesan Training,* and *Online Courses or Modules.* In contrast, administrators cited that the least provided (frequency) professional development activities were *College Courses, Internships, Completion of National Board Certification,* and *Individual or Group Research Project.* Using bold and italicized font, the top group and bottom group are indicated on Table 22.

Teachers' responses on professional development (frequency). The teachers were asked via survey which professional development was provided (frequency) in their schools (results shown in Table 23). Because I did not know if any mean was truly statistically higher than another, I examined the confidence interval, 95% for the lower and upper bounds. Specifically, I compared those at the lower end (1.73 to 2.26) of the confidence intervals and separated the confidence intervals, without overlapping, into top and bottom groups of professional development activities. For example, *Internships* was categorized into the bottom group because it had a confidence interval of LCI 1.73 to 2.26 UCI. *Teacher Committee or Task Force* was categorized into the top group because it has a confidence interval of LCI 3.39 to 3.80

UCI. As a result, with 95% confidence the top group is statistically higher than the bottom group, which is statistically lower.

Table 23

Teachers' Responses: Provided Professional Development (Frequency)

Professional Development	Mean	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound
Teacher Committee or Task Force	*3.59*	*.100*	*3.39*	*3.80*
Professional Learning Community (PLC)	*3.47*	*.164*	*3.14*	*3.80*
Mentoring	*3.34*	*.126*	*3.09*	*3.60*
Teacher Groups (Vertical and Horizontal Teams)	*3.34*	*.154*	*3.03*	*3.66*
Archdiocesan or Diocesan Training	*3.33*	*.118*	*3.09*	*3.57*
Workshops	*3.26*	*.108*	*3.04*	*3.48*
Conferences	*3.19*	*.124*	*2.94*	*3.44*
Online Courses or Modules	*3.15*	*.115*	*2.92*	*3.39*
Instructional Coaching	*2.95*	*.120*	*2.70*	*3.20*
Completion of National Board Certification	2.92	.141	2.64	3.21
Observations Other Teachers' Classes	2.79	.147	2.49	3.09
College Courses	*2.40*	*.129*	*2.14*	*2.67*
Individual or Group Research Project	*2.40*	*.161*	*2.07*	*2.72*
Internships	*2.00*	*.129*	*1.73*	*2.26*

Note. Using bold and italicized font, the top group and bottom group are indicated on Table 23.

According to teachers, the most provided (frequency) professional development activities, with 95% confidence, resulted in the group including: *Teacher Committee or Task Force, Professional Learning Community (PLC), Mentoring, Teacher Groups (Vertical and Horizontal Teams), Archdiocesan and Diocesan Training, Workshops, Conferences,* and *Online Courses or Modules*. On the other hand, teachers reported that the least provided (frequency)

professional development activities were *College Courses, Individual or Group Research Project,* and *Internships*. Using bold and italicized font, the top group and bottom group are indicated on Table 23.

Administrators	Teachers	Summary of Responses
Top Group	**Top Group**	**Top Group**
Mentoring	***Teacher Committee or Task Force***	***Mentoring***
Teacher Groups (Vertical and Horizontal)	Professional Learning Committee (PLC)	***Teacher Committee or Task Force***
Teacher Committee or Task Force	***Mentoring***	***Teacher Groups (Vertical and Horizontal)***
Workshops	***Teacher Groups (Vertical and Horizontal***	***Workshops***
Observations other Teachers' Classes	***Archdiocesan or Diocesan Training***	***Archdiocesan or Diocesan Training***
Archdiocesan or Diocesan Training	***Workshops***	***Online Courses or Modules***
Online Courses or Modules	Conferences	
	Online Courses or Modules	
Bottom Group	**Bottom Group**	**Bottom Group**
College Courses	***College Courses***	***College Courses***
Internships	***Indiv. or Group Research Project***	***Internships***
National Board Certification	***Internships***	***Indiv. or Group Research Project***
Indiv. or Group Research Project		

Figure 2. Statistically Higher (Top Group) and Lower (Bottom Group) Professional Development (Frequency) with 95% Confidence. Administrators' and teachers' responses in gray; Summary of responses in yellow.

Summary of Professional Development (Frequency). As shown in Figure 2, a summary of administrators' and teachers' statistically higher (top group) and lower (bottom group) professional development (frequency) with 95% confidence is itemized. Both administrators and teachers ranked these six top professional development activities, in terms of frequency, as: *Mentoring, Teacher Committee or Task Force, Teacher Groups (Vertical or Horizontal), Workshops, Archdiocesan or Diocesan Training, and Online Courses or Modules.* Both administrators and teachers noted these three bottom professional development activities, in terms of frequency, as *College Courses, Internships,* and *Individual or Group Research Project.* The administrators' and teachers' responses are highlighted in gray, followed by a summarized

list of their responses highlighted in yellow, which were based on similar groupings in both the administrators' and teachers' lists.

Administrators' responses on professional development (effectiveness). The administrators were asked via a survey which professional development activities were valued (effectiveness) in their schools. Although the mean data in Table 24 were arranged from the

Table 24

Administrators' Responses: Valued Professional Development (Effectiveness)

Professional Development	Mean	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound
Mentoring	4.12	.092	*3.91*	*4.32*
Instructional Coaching	4.06	.108	3.81	4.30
Teacher Committee or Task Force	4.06	.167	3.68	4.43
Observations Other Teachers' Classes	4.06	.223	3.56	4.55
Teacher Groups (Vertical and Horizontal Teams)	3.84	.230	3.33	4.36
Archdiocesan or Diocesan Training	3.83	.230	3.32	4.34
Conferences	3.72	.228	3.21	4.23
Professional Learning Community (PLC)	3.66	.210	3.19	4.13
Online Courses or Modules	3.63	.217	3.15	4.12
Internships	3.60	.276	2.99	4.22
Workshops	3.57	.281	2.94	4.20
Individual or Group Research	3.45	.238	2.92	3.98
Completion of National Board Certification	3.45	.304	2.77	4.13
College Courses	*3.24*	*.295*	*2.58*	*3.89*

Note. Using bold and italicized font, the top group and bottom group are indicated on Table 24.

highest mean to the lowest mean, I could not determine the ranking of professional development using inferential statistical analysis. Therefore, I am simply reporting responses and confidence intervals as described earlier.

Administrators cited *Mentoring* as the most valued (effectiveness) professional development, with 95% confidence. The least valued (effectiveness) professional development was *College Courses* according to administrators. Using bold and italicized font, the top group and bottom group are indicated on Table 24.

Table 25

Teachers' Responses: Valued Professional Development (Effectiveness)

Professional Development	Mean	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound
Mentoring	*3.89*	*.079*	*3.73*	*4.06*
Teacher Groups (Vertical and Horizontal Teams)	*3.81*	*.124*	*3.55*	*4.07*
Teacher Committee or Task Force	*3.78*	*.120*	*3.53*	*4.03*
Instructional Coaching	*3.72*	*.131*	*3.44*	*3.99*
Completion of National Board Certification	3.63	.129	3.36	3.90
Workshops	3.59	.114	3.35	3.83
Professional Learning Community (PLC)	3.53	.136	3.25	3.82
Observations Other Teachers' Classes	3.50	.160	3.17	3.84
Conferences	3.49	.132	3.22	3.77
Archdiocesan or Diocesan Training	*3.40*	*.118*	*3.15*	*3.65*
Individual or Group Research	*3.33*	*.144*	*3.03*	*3.63*
Online Courses or Modules	*3.29*	*.148*	*2.98*	*3.60*
Internships	*3.19*	*.129*	*2.92*	*3.46*
College Courses	*3.10*	*.138*	*2.81*	*3.39*

Note. Using bold and italicized font, the top group and bottom group are indicated on Table 25.

Teachers' responses on professional development (effectiveness). The teachers were asked via a survey which professional development was valued (effectiveness) in their schools (results shown in Table 25). Again, as in earlier comparisons, *College Courses* was categorized into the bottom group because it had a confidence interval of LCI 2.81 to 3.39 UCI. *Mentoring* was categorized into the top group because it has a confidence interval of LCI 3.73 to 4.06 UCI.

Teachers reported the most valued (effectiveness) professional development, with 95% confidence, as *Mentoring, Teacher Groups (Vertical and Horizontal Teams), Teacher Committee or Task Force,* and *Instructional Coaching.* The least valued (effectiveness) professional development was *College Courses*. Using bold and italicized font, the top group and bottom group are indicated on Table 25.

Summary of Professional Development (Effectiveness). As noted in Figure 3, a summary of administrators' and teachers' statistically higher (top group) and lower (bottom group) professional development (effectiveness) with 95% confidence is itemized. Both administrators and teachers ranked *Mentoring* as the top professional development in terms of effectiveness. Both administrators and teachers listed *College Courses* as the bottom, or least effective professional development. The administrators' and teachers' responses are highlighted in gray, followed by the summary of their responses highlighted in green.

Administrators	**Teachers**	**Summary of Responses**
Top Group	**Top Group**	**Top Group**
Mentoring	***Mentoring***	***Mentoring***
	Teacher Groups (Vertical and Horizontal Teams	
	Teacher Committee or Task Force	
	Instructional Coaching	
Bottom Group	**Bottom Group**	**Bottom Group**
College Courses	***College Courses***	***College Courses***

Figure 3. Statistically Higher (Top Group) and Lower (Bottom Group) Professional Development (Effectiveness) with 95% Confidence; Administrators' and Teachers' responses in gray; Summary responses in green.

Summary of provided versus valued professional development (top group).

The top group of the provided (frequency) and valued (effectiveness) categories of professional development was summarized according to administrators and teachers (results in Figure 4).

	Provided (Frequency)	Valued (Effectiveness)
Administrators	**Mentoring**	**Mentoring**
	Teacher Groups (Vertical and Horizontal)	
	Teacher Committees or Task Force	
	Observations Other Teachers' Classes	
	Workshop	
	Archdiocesan or Diocesan Training	
	Online Courses or Modules	
Teachers	**Mentoring**	**Mentoring**
	Teacher Groups (Vertical and Horizontal)	**Teacher Groups (Vertical and Horizontal Teams)**
	Teacher Committees or Task Force	**Teacher Committees or Task Force**
	Professional Learning Community (PLC)	**Instructional Coaching**
	Archdiocesan or Diocesan Training	
	Workshops	
	Conferences	
	Online Courses or Modules	

Figure 4. Summary of Provided Versus Valued Professional Development According to Administrators and Teachers (Top Group)
Blue Highlight: Administrators and Teachers indicated the provided and valued professional development.
Green Highlight: Teachers indicated the provided and valued professional development.
Yellow Highlight: Administrators indicated that the provided professional development is not valued by administrators.
Red Highlight: Teachers indicated that the provided professional development is not valued by teachers.
Gray Highlight: Administrators and Teachers indicated the provided external professional development is not valued by administrators and teachers.
Pink Highlight: Teachers indicated the valued professional development is not provided.

The color-coding in Figure 4 illustrates the provided and valued professional development according to award-winning administrators and teachers. Clearly, administrators and teachers cited that *Mentoring* was both provided and valued as a type of professional development in their schools (blue highlight on Figure 4).

Teachers noted that *Teacher Groups (Vertical and Horizontal Teams)* and *Teacher Committee or Task Force* were both provided and valued professional development in their schools (green highlight in Figure 4). On the other hand, administrators noted that *Teacher Groups (Vertical and Horizontal Teams), Teacher Committee or Task Force*, and *Observations of Other Teacher's Classes* were provided, but not valued professional development in their schools (yellow highlight on Figure 4).

Also, teachers noted that *Instructional Coaching* was not provided (frequency) professional development, yet *Instructional Coaching* was ranked fourth highest in terms of valued (effectiveness) professional development among teachers (pink highlight in Figure 4). In other words, teachers are indicating that *Instructional Coaching* is effective professional development but is not provided frequently in the schools. Teachers cited that Professional Learning Communities (PLC) were provided, but not valued professional development (red highlight in Figure 4).

As far as external professional development, administrators and teachers cited *Workshops, Archdiocesan and Diocesan Training and Online Courses or Modules* as provided professional development (gray highlight on Figure 4). Teachers also noted *Conferences* as external professional development (gray highlight on Figure 4). However, none of these external professional development activities was indicated as valued by administrators or teachers.

Summary of provided versus valued professional development (bottom group). The bottom group of the provided (frequency) and valued (effectiveness) of professional development was summarized according to administrators and teachers (as shown in Figure 5). Both administrators and teachers cited that *College Courses* were the least provided and valued professional development in their schools. Administrators and teachers cited that *Internships*

and *Individual or Group Research Projects* were infrequently provided and minimally valued professional development. Administrators also cited the same for *National Board Certification*. In summary, according to administrators and teachers, the provided (frequency) and valued (effectiveness) of professional development is a combination of individualized instruction and collaborative group learning. Individualized instruction is achieved through *Mentoring* and Instructional *Coaching*. Collaborative group learning is attained through *Teacher Groups (Vertical and Horizontal Teams)* and *Teacher Committees or Task Forces.*

	Provided (Frequency)	**Valued (Effectiveness)**
Administrators	College Courses	College Courses
	Internships	
	Indiv. or Group Research Project	
	National Board Certification	
Teachers	College Courses	College Courses
	Internships	
	Individual or Group Research	

Figure 5. Summary of Provided Versus Valued Professional Development According to Administrators and Teachers (Bottom Group)
Green Highlight: Professional development is provided infrequently and valued minimally by administrators and teachers.
Yellow Highlight: Professional development is provided infrequently and not valued by administrators and teachers

Research Question 4a: What are the differences in their perceptions of professional development according to teachers and administrators?

According to teachers and administrators, one difference, *Professional Learning Community (PLC),* emerged in their perceptions of professional development activities to build teacher leadership capacity. The statistically significant response was to the survey question: *Participation in a Professional Learning Community (PLC) in my school developed teacher leadership capacity*. In Table 26, the mean for administrators was 4.07 (on a Likert scale where 4 is valued as *agree*) and the mean for the teachers was 3.22 Administrators believe that the effectiveness of professional learning communities (PLC) is occurring at higher levels than teachers do in their schools.

Table 26

Significant Differences about Effectiveness of Professional Development according to Administrators and Teachers

Professional Development	Mean for Administrators	Mean for Teachers	Significance
Professional Learning Community (PLC)	4.07	3.22	.042*

Note. * $p \leq 0.05$

Research Question 4b: What are the differences in what teachers compared to their self-reported independent variables perceive about professional development, comparing all independent variables?

Provided (Frequency) Professional Development

Frequency: seniority and workshops. Table 27 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (workshops) that have been provided by your school personnel or professional organizations.* The seniority was

Table 27

Frequency: Seniority and Workshops

Seniority	Significance
0-5 years to 11-15 years	.506
0-5 years to 6-10 years	.454
0-5 years to over 20 years	.080
0-5 years to 16-20 years	.002**
11-15 years to 6-10 years	.923
11-15 years to over 20 years	.252
11-15 years to 16-20 years	.012*
6-10 years to over 20 years	.300
6-10 years to 16-20 years	.016*
Over 20 years to 16-20 years	.143

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

statistically significant (p=.026). The mean (M=3.76) of 21 teachers with 16-20 years of seniority was the highest, followed by the mean (M=3.39) of 31 teachers with over 20 years and the mean (M=3.15) of 33 teachers with 6-10 years of seniority. The 30 teachers with 0-5 years

of seniority had the lowest mean (M=2.97). The mean (M=3.11) of 35 teachers with 11-15 years of seniority came just before the teachers with 0-5 years of seniority.

When the Mann-Whitney post-hoc test was calculated, a statistically significant result was found between the teachers with 16-20 years of seniority and teachers with 0-5 years of seniority (p=.002). Teachers (M= 3.76) with 16-20 years of seniority indicated that workshops were provided as professional development more than teachers (M=2.97) with 0-5 years of seniority. Another significantly significant result was reported between the teachers with 16-20 years of seniority and teachers with 11-15 years of seniority (p=.012).

Teachers (M=3.76) with 16-20 years of seniority reported that workshops were provided as professional development more than teachers (M=3.11) with 11-15 years of seniority. Additionally, a significant result was found between the teachers with 16-20 years of seniority and teachers with 6-10 years of seniority (p=.016). Teachers (M=3.76) with 16-20 years of seniority indicated that workshops were provided as professional development more than teachers (M=3.15) with 6-10 years of seniority.

Frequency: total years of experience and workshops. Table 28 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (workshops) that have been provided by your school personnel or professional organizations.* The category of total years of experience was statistically significant (p=.017). The mean (M=3.54) of 57 teachers with over 20 years of experience was the highest, followed by the mean (M=3.25) of 20 teachers with over 6-10 years and the mean (M=3.10) of 34 teachers with 16-20 years of experience. The 26 teachers with 11-15 years of seniority had the lowest mean (M=2.81). The mean (M=3.00) of 13 teachers with 0-5 years of experience came just before the teachers with 11-15 years of experience.

Table 28

Frequency: Total Years of Experience and Workshops

Total Years of Experience	Significance
11-15 years to 0-5 years	.513
11-15 years to 16-20 years	.265
11-15 years to 6-10 years	.157
11-15 years to over 20 years	.001**
0-5 years to 16-20 years	.834
0-5 years to 6-10 years	.577
0-5 years to over 20 years	.084
16-20 years to 6-10 years	.643
16-20 years to over 20 years	.033*
6-10 years to over 20 years	.201

Note. * $p \leq 0.05$; * *$p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found between the teachers with over 20 years of experience and teachers with 11-15 years of experience (p=.001). Teachers (M=3.54) with 20 years of experience indicated that workshops were provided as professional development more than teachers (M=2.81) with 11-15 years of experience. Another statistically significant result was found between the teachers with over 20 years of experience and teachers with 16-20 years of experience (p=.033). Teachers (M=3.54) with 20 years of experience reported that workshops were provided for professional development more than teachers (M=3.15) with 16-20 years of experience.

Frequency: setting and college courses. Table 29 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (college courses) that have been provided by your school personnel or professional organizations.* The setting was statistically significant (p=.007). The mean (M=2.63) of 35 teachers in an urban setting was the highest, followed by the mean (M=2.32) of 10 teachers in a rural setting. The 105 teachers in a suburban setting had the lowest mean (M=2.15).

The Mann-Whitney test found a statistically significant result between the urban and suburban settings (p=.042). Teachers (M=2.63) in urban settings indicated that college courses were provided as professional development more than teachers (M=2.15) in suburban settings. Also, a statistically significant result was calculated between the rural and suburban settings (p=.007). Teachers (M=2.32) in rural settings indicated that college courses were provided as professional development more than teachers (M=2.15) in suburban settings.

Table 29

Frequency: Setting and College Courses

Setting	Significance
Suburban-Urban	.042*
Suburban-Rural	.007**
Urban-Rural	.168

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: setting and online courses or modules. Table 30 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (online courses or modules) that have been provided by your school personnel or professional organizations.* The setting was statistically significant (p=.005). The mean (M=3.60) of 10 teachers in a rural setting was the highest, followed by the mean (M=3.51) of 35 teachers in an urban setting. The 105 teachers in the suburban setting had the lowest mean (M=2.98).

A statistically significant result was found between the urban and suburban settings (p=.004) based on the Mann Whitney post-hoc test. Teachers (M=3.51) in urban settings indicated that online courses or modules were provided as professional development activities more than teachers (M=2.98) in suburban settings. Another statistically significant result was found between the rural and suburban settings (p=.050). Teachers (M=3.60) in rural settings indicated that online courses or modules were provided as professional development activities more than teachers (M=2.98) in suburban settings.

Table 30

Frequency: Setting and Online Courses or Modules

Setting	Significance
Suburban-Urban	.004**
Suburban-Rural	.050*
Urban-Rural	.806

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: setting and individual or group research project. Table 31 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (individual or group research project) that have been provided by your school personnel or professional organizations.* The setting was statistically significant (p=.039). The mean (M=3.00) of 10 teachers in a rural setting was the highest, followed by the mean (M=2.86) of 35 teachers in an urban setting. The 105 teachers in a suburban setting had the lowest mean (M=2.37).

Table 31

Frequency: Setting and Individual or Group Research Project

Setting	Significance
Suburban-Urban	.029*
Suburban-Rural	.108
Urban-Rural	.772

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using the Mann-Whitney Test

A statistically significant result was found from post-hoc testing between the urban and suburban settings (p=.029). Teachers (M=2.86) in the urban settings indicated that individual or group research projects were provided as professional development activities more than teachers (M=2.37) in the suburban settings. For this output, the Kruskal-Wallis test is significant (p=.039) and the Mann-Whitney post hoc test is significant (p=.029), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. However, this is listed as a statistically significant finding.

Frequency: student population and college courses. Table 32 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (college courses) that have been provided by your school personnel or professional organizations.* The student population was statistically significant (p=.001). The mean (M=2.79) of student population (1-300 students; n=47) was the highest, followed by the mean (M=2.38) of student population (601-900 students; n=8), and the mean (M=2.19) of student population (301-600 students, n=73). The student population (over 900 students, n=22) had the lowest mean (M=1.73).

Post hoc testing led to a statistically significant result between the student population of 1-300 students and the student population of over 900 students (p=.000). Teachers (M=2.79) with a student population of 1-300 students indicated that college courses were more frequent professional development activities than teachers (M=1.73) with a student population of over 900 students. Another statistically significant result was reported between the student population of 1-300 students and the student population of 301-600 students (p=.004). Teachers (M=2.79) with a student population of 1-300 students reported that college courses were more frequent professional development activities than teachers (M=2.19) with a student population of 301-600 students.

Table 32

Frequency: Student Population and College Courses

Student Population	Significance
Over 900 to 301-600	.063
Over 900 to 601-900	.224
Over 900 to 1-300	.000**
301-600 to 601-900	.896
301-600 to 1-300	.004*
601-900 to 1-300	.198

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: student population and internships. Table 33 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (internships) that have been provided by your school personnel or professional organizations.* The student population, referring to size of the school for each teacher participant, was statistically significant (p=.000). The mean (M=2.55) of student population (1-300 students, n=47) was the highest, followed by the mean (M=2.04) of student population (301-600 students, n=73), and the mean (M=1.63) of student population (601-900 students, n=8). The student population (over 900 students, n=22) had the lowest mean (M=1.45).

When the Mann-Whitney test was calculated, a statistically significant result was found between the student population of 301-600 students and the student population of over 900 students (p=.010). Teachers (M=2.04) in schools with student populations (301-600 students) indicated that internships were provided as professional development more often than teachers (M=1.45) who worked in schools with student populations over 900 students. A second statistically significant finding was between the student population of 1-300 students and the student population over 900 students (p=.000). Teachers (M=2.55) who were employed in schools with student populations of 1-300 students reported that internships were provided as professional development more often than teachers (M= 1.45) who worked in schools with student populations over 900 students.

A third statistically significant finding occurred between the student population of 1-300 students and the student population of 601-900 students (p=.029). In schools with the student population of 1-300 students, teachers (M=2.55) responded that internships (induction programs, such as supervising a student teacher) were provided as professional development more often than teachers (M=1.63) who worked in schools with student populations of 601-900 students.

Table 33

Frequency: Student Population and Internships

Student Population	Significance
Over 900 to 601-900	.611
Over 900 to 301-600	.010*
Over 900 to 1-300	.000**
601-900 to 301-600	.265
601-900 to 1-300	.029*
301-600 to 1-300	.024*

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Lastly, a statistically significant finding was found between the student population of 1-300 students and the student populations of 301-600 students (p=.024). Teachers (M=2.55) who were employed in schools with student populations of 1-300 students reported that internships/induction programs were provided as a professional development activity to develop teacher leadership more often than teachers (M=2.04) who worked with student populations of 301-600 students.

Frequency: student population and observations of other teachers' classes. Table 34 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (observations of other teachers' classes) that have been provided by your school personnel or professional organizations.* The student population, referring to size of the school for each teacher participant, was statistically significant (p=.019). The mean (M=3.86, n=22) of student population (over 900 students) was the highest, followed by the mean (M=3.14, n=73) of student population (301- 600 students), and the mean (M=3.04, n=47) of student population (1-300 students). The student population (601-900 students) had the lowest mean (M=2.63, n=8).

A statistically significant result was found between the student population of over 900 students and the student population of 601-900 students (p=.018) Teachers (M=3.86) in schools

with the largest student populations of over 900 students indicated that observations of other teachers' classes were provided as professional development activities more often than teachers (M=2.63) who worked in schools of 601-900 students.

A second statistically significant finding occurred between the largest student population, over 900 students, and the smallest student population of 1-300 students (p=.005). Teachers (M= 3.86) who were employed in schools with student populations (over 900 students) reported that observations of other teachers' classes were provided as professional development more than teachers (M=3.04) who worked in schools with student populations of 1-300 students. Lastly, a statistically significant finding was reported between the student population of over 900 students and the student population of 301-600 students (p=.008). Teachers (M=3.86) who were employed in schools with student populations over 900 students reported that observations of other teachers' classes were provided as professional development more than teachers (M=3.14) who worked in schools with student populations of 301-600 students.

Table 34

Frequency: Student Population and Observations of Other Teachers' Classes

Student Population	Significance
601-900 to 1-300	.498
601-900 to 301-600	.366
601-900 to over 900	.018*
1-300 to 301-600	.679
1-300 to over 900	.005**
301-600 to over 900	.008*

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: student population and professional learning communities (PLC). Table 35 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (professional learning communities) that have been provided by your school personnel or professional organizations.* The student population referring to size of the

school for each teacher participant, was statistically significant (p=.000). The mean (M=3.89, n=47) of student population (1-300 students) was the highest, followed by the mean (M=3.77, n=73) of student population (301-600 students), and the mean (M=2.64, n=22) of student population (over 900 students). The student population (601-900 students) had the lowest mean (M=2.63, n=8).

A statistically significant result was found between the student population of 301-600 students and the student population of 601-900 students (p=.012). Teachers (M=3.77) in schools with student population of 301-600 students indicated that professional learning communities were provided as professional development more often than teachers (M=2.63) who worked in schools with student population of 601-900. A second statistically significant finding was between the student population of 1-300 students and the student population of 601-900 (p=.007). Teachers (M=3.89) who were employed in schools with student populations of 1-300 students reported that professional learning communities were provided as professional development more than teachers (M=2.63) who worked in schools with student populations of 601-900 students.

A third statistically significant result occurred between the student population of 301-600 students and the student population of over 900 students (p=.000). Teachers (M=3.77) who were employed in schools with student populations of 301-600 students reported that professional learning communities were provided as professional development more than teachers (M=2.64) who worked in schools with the student population over 900 students. Lastly, a statistically significant result was found between the student population of 1-300 students and the student population of over 900 students (p=.000). Teachers (M=3.89) who were employed in schools with student population of 1-300 students reported that professional learning communities were

provided as professional development more than teachers (M=2.64) who worked in schools with the student population over 900 students.

Table 35

Frequency: Student Population and Professional Learning Community (PLC)

Student Population	Significance
601-900 to 900+	.945
601-900 to 301-600	.012*
601-900 to 1-300	.007**
900+ to 301-600	.000**
900+ to 1-300	.000**
301-600 to 1-300	.619

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: year of the National Blue Ribbon Award and college courses. Table 36 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (college courses) that have been provided by your school personnel or professional organizations.* The year of the National Blue Ribbon Award was statistically significant (p=.000). The mean (M=3.15, n=33) of year 2017 was the highest, followed by the mean (M=2.20, n=44) of year 2016, and the mean (M=2.03, n=30) of year 2015. The year 2018 had the lowest mean (M=2.00, n=43).

Table 36

Frequency: Year of the National Blue Ribbon Award and College Courses

Year of the National Blue Ribbon Award	Significance
18-15	.733
18-16	.347
18-17	.000**
15-16	.611
15-17	.000**
16-17	.000**

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

When the Mann-Whitney test was calculated, a statistically significant result was found

between the teachers awarded in 2017 and teachers awarded in 2018 (p=.000). Teachers (M=3.15) awarded the National Blue Ribbon Award in 2017 indicated that college courses were provided as professional development activities more than teachers (M=2.00) who were award-winners in 2018.

A second statistically significant result occurred between the teachers awarded in 2017 and teachers awarded in 2015 (p=.000). Teachers (M=3.15) awarded the National Blue Ribbon Award in 2017 indicated that college courses were provided as professional development activities more than teachers (M=2.03) who were award-winners in 2015. Lastly, a statistically significant result was found between the teachers awarded in 2017 and teachers awarded in 2016 (p=.000). Teachers (M=3.15) awarded the National Blue Ribbon Award in 2017 indicated that college courses were provided as professional development activities more than teachers (M=2.20) who were award-winners in 2016.

Frequency: year of the National Blue Ribbon Award and online courses and modules. Table 37 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (online courses or modules) that have been provided by your school personnel or professional organizations.* The year of the National Blue Ribbon Award was statistically significant (p=.004). The mean (M=3.64, n=33) of year 2017 was the highest, followed by the mean (M=3.20, n=44) of year 2016, and the mean (M=2.97, n=30) of year 2015. The year 2018 had the lowest mean (M=2.84, n=43). A statistically significant result was found between teachers awarded in 2017 and teachers awarded in 2018 (p=.001).Teachers (M=3.64) awarded the National Blue Ribbon Award in 2017 indicated that online courses or modules were provided as professional development activities more than teachers (M=2.84) who were award-winners in 2018. A second statistically significant result occurred between the teachers awarded

in 2017 and teachers awarded in 2015 (p=.008). Teachers (M=3.64) awarded in 2017 indicated that online courses or modules were provided as professional development activities more than teachers (M=2.97) who were award-winners in 2015.

Table 37

Frequency: Year of the National Blue Ribbon Award and Online Courses or Modules

Year of the National Blue Ribbon Award	Significance
18-15	.564
18-16	.075
18-17	.001**
15-16	.301
15-17	.008**
16-17	.067

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: year of the National Blue Ribbon Award and internships (induction programs). Table 38 refers to the question: Please reflect upon and indicate the frequency of these professional development activities (internships, such as induction programs) that have been provided by your school personnel or professional organizations. The year of the National Blue Ribbon Award was statistically significant (p=.000). The mean (M=2.82, n=33) of year 2017 was the highest, followed by the mean (M=2.02, n=44) of year 2016, and the mean (M=1.84, n=43) of year 2018. The year 2015 had the lowest mean (M=1.77, n=30).

Table 38

Frequency: Year of the National Blue Ribbon Award and Internships (Induction Programs)

Year of the National Blue Ribbon Award	Significance
15-18	.965
15-16	.293
15-17	.000**
18-16	.265
18-17	.000**
16-17	.004**

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

A statistically significant result was found between the teachers awarded in 2017 and teachers awarded in 2015 (p=.000). Teachers (M=2.82) awarded in 2017 indicated that internships, such as induction programs, were provided as professional development activities more than teachers (M=1.77) awarded in 2015. A statistically significant result was found between the teachers awarded in 2017 and teachers awarded in 2018 (p=.000).

Teachers (M=2.82) awarded in 2017 indicated that internships, such as induction programs, were provided as professional development activities more than teachers (M=1.84) who were award-winners in 2018. Lastly, a third statistically significant result was found between the teachers awarded in 2017 and teachers awarded in 2016 (p=.004). Teachers (M=2.82) awarded in 2017 indicated that internships, such as induction programs, were provided as professional development activities more than teachers (M=2.02) awarded in 2016.

Frequency: year of the National Blue Ribbon Award and individual or group research project. Table 39 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (individual or group research project) that have been provided by your school personnel or professional organizations.* The year of the National Blue Ribbon Award was statistically significant (p=.040). The mean (M=3.00, n=33) of year 2017 was the highest, followed by the mean (M=2.53, n=30) of year 2015, and the mean (M=2.44, n=43) of year 2018. The year 2016 had the lowest mean (M=2.25, n=44).

When the Mann-Whitney test was calculated, a statistically significant result was found between teachers the teachers awarded in 2017 and teachers awarded in 2016 (p=.005). Teachers (M=3.00) awarded in 2017 indicated that individual or group research projects were provided as professional development activities more than teachers (M=2.25) who were award-winners in 2016. A second statistically significant result occurred between teachers awarded in 2017 and

teachers awarded in 2018 (*p*=.028). Teachers (M=3.00) receiving the National Blue Ribbon Award in 2017 indicated that individual or group research projects were provided as professional development activities than teachers (M=2.44) who were award-winners in 2018.

Table 39

Frequency: Year of the National Blue Ribbon and Individual or Group Research Projects

Year of the National Blue Ribbon Award	Significance
16-18	.543
16-15	.310
16-17	.005**
18-15	.654
18-17	.028*
15-17	.111

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Frequency: year of the National Blue Ribbon Award and professional learning community (PLC). Table 40 refers to the question: *Please reflect upon and indicate the frequency of these professional development activities (professional learning communities) that have been provided by your school personnel or professional organizations.* The year of the National Blue Ribbon Award was statistically significant (*p*=.000). The mean (M=4.21, *n*=33) of year 2017 was the highest, followed by the mean (M=3.70, *n*=43) of year 2018, and the mean (M=3.64, *n*=44) of year 2016. The year 2015 had the lowest mean (M=2.63, *n*=30).

A statistically significant result was found between teachers awarded in 2016 and teachers awarded in 2015 (*p*=.001). Teachers (M=3.64) receiving the National Blue Ribbon Award in 2016 indicated that professional learning communities were provided as professional development activities more than teachers (M=2.63) who were award-winners in 2015. A second statistically significant result occurred between the teachers awarded in 2018 and teachers awarded in 2015 (*p*=.000). Teachers (M=3.70) awarded in 2018 indicated the professional

learning communities were provided as professional development activities more than teachers (M=2.63) awarded in 2015.

Table 40

Frequency: Year of the National Blue Ribbon and Professional Learning Community (PLC)

Year of the National Blue Ribbon Award	Significance
15-16	.001**
15-18	.000**
15-17	.000**
16-18	.789
16-17	.044*
18-17	.078

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

A third statistically significant result was found between teachers awarded in 2017 and teachers awarded in 2015 (p=.000). Teachers (M=4.21) receiving the National Blue Ribbon Award in 2017 indicated that professional learning communities were provided as professional development activities more than teachers (M=2.63) who were award-winners in 2015. Lastly, a statistically significant result was found between teachers awarded in 2017 and teachers awarded in 2016 (p=.044). Teachers (M=4.21) awarded in 2017 indicated that professional learning communities were provided as professional development activities more than teachers (M=3.64) awarded in 2016.

Valued (Effectiveness) Professional Development

Effectiveness: seniority and instructional coaching. Table 41 refers to the question: *Please respond how well each of these professional development activities (instructional coaching) has developed teacher leadership capacity in your school.* The seniority was statistically significant (p=.043). The mean (M=4.27, n=22) of teachers with 0-5 years of seniority was the highest, followed by the mean (M=3.94, n=17) of teachers with 16-20 years and the mean (M=3.67, n=24) of teachers with 6-10 years of seniority. The teachers with 11-15

years of seniority had the lowest mean (M=3.58, *n*=31). The mean (M=3.61, *n*=28) of teachers with over 20 years of seniority came just before the teachers with 11-15 years of seniority.

A statistically significant result was found between the teachers with 0-5 years of seniority and teachers with 11-15 years of seniority (*p*=.006). Teachers (M= 4.27) with 0-5 years of seniority indicated that instructional coaching developed teacher leadership capacity in their schools more than teachers (M=3.58) with 11-15 years of seniority. Another statistically significant result occurred between the teachers with 0-5 years of seniority and teachers with over 20 years of seniority (*p*=.011). Teachers (M=4.27) with 0-5 years of seniority indicated that instructional coaching developed teacher leadership capacity in their schools more than teachers (M=3.61) with over 20 years of seniority.

Table 41

Effectiveness: Years of Seniority (at Current School) and Instructional Coaching

Years of Seniority (at Current School)	Significance
11-15 years to over 20 years	.891
11-15 years to 6-10 years	.862
11-15 years to 16-20 years	.252
11-15 years to 0-5 years	.006**
Over 20 years to 6-10 years	.967
Over 20 years to 16-20 years	.313
Over 20 years to 0-5 years	.011*
6-10 years to 16-20 years	.346
6-10 years to 0-5 years	.016*
16-20 years to 0-5 years	.199

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Lastly, a statistically significant result was found between the teachers with 0-5 years of seniority and teachers with 6-10 years of seniority (*p*=.016). Teachers (M=4.27) with 0-5 years of seniority indicated that instructional coaching developed teacher leadership capacity in their schools more than teachers (M=3.67) with 6-10 years of seniority. For this output, the Kruskal-Wallis test is significant (*p*=.043) and the Mann-Whitney post hoc test is significant (*p*=.006;

p=.011; *p*=.016), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. As explained earlier, I listed this as a statistically significant finding.

Effectiveness: seniority and mentoring. Table 42 refers to the question: *Please respond how well each of these professional development activities (mentoring) has developed teacher leadership capacity in your school.* The seniority is statistically significant (*p*=.029). The mean (M=4.30, *n*=30) of teachers with over 20 years of experience was the highest, followed by the mean (M=4.13, *n*=23) of teachers with 0-5 years and the mean (M=3.87, *n*=31) of teachers with over 11-15 of experience. The teachers with 16-20 years had the lowest mean (M=3.75, *n*=20). The mean (M=3.83, *n*=29) of the teachers with 6-10 years of experience came before the teachers with 16-20 years of experience.

A statistically significant result was found between the teachers with over 20 years of seniority and teachers with 16-20 years of seniority (*p*=.011). Teachers (M=4.30) with over 20 years of seniority indicated that mentoring developed teacher leadership capacity in their schools more than teachers (M=3.75) with 16-20 years of seniority. A second statistically significant result occurred between the teachers with over 20 years of seniority and teachers with 6-10 years of seniority (*p*=.010). Teachers (M=4.30) with over 20 years of seniority indicated that mentoring developed teacher leadership capacity in their schools more than teachers (M=3.83) with 6-10 years of seniority.

Lastly, a statistically significant result occurred between the teachers with over 20 years of seniority and teachers with 11-15 years of seniority (*p*=.018). Teachers (M=4.30) with over 20 years of seniority indicated that mentoring developed teacher leadership capacity in their schools more than teachers (M=3.87) with 11-15 years of seniority. For this output, the Kruskal-

Wallis test is significant (p=.029) and the Mann-Whitney post hoc test is significant (p=.011; p=.010; p=.018), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. Based on out university statistician's advice, I listed this as a statistically significant finding.

Table 42

Effectiveness: Years of Seniority (at Current School) and Mentoring

Years of Seniority (at Current School)	Significance
16-20 years to 6-10 years	.830
16-20 years to 11-15 years	.666
16-20 years to 0-5 years	.108
16-20 years to over 20 years	.011*
6-10 years to 11-15 years	.812
6-10 years to 0-5 years	.124
6-10 years to over 20 years	.010*
11-15 years to 0-5 years	.182
11-15 years to over 20 years	.018*
0-5 years to over 20 years	.386

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using the Mann-Whitney Test

Effectiveness: seniority and archdiocesan or diocesan training. Table 43 refers to the question: *Please respond how well each of these professional development activities (archdiocesan or diocesan training) has developed teacher leadership capacity in your school.* The seniority is statistically significant (p=.024). The mean (M=3.89, n=19) of teachers with 16-20 years of experience at their current school was the highest, followed by the mean (M=3.84, n=31) of teachers with over 20 years of seniority and the mean (M=3.54, n=24) of teachers with 0-5 years of seniority. The teachers with 6-10 years had the lowest mean (M=3.10, n=29). The mean (M=3.44, n=32) of the teachers with 11-15 years of seniority came before the teachers with 6-10 years of seniority.

A statistically significant result was found between teachers with over 20 years of seniority and teachers with 6-10 years of seniority (p=.003). Teachers (M=3.84) with over 20

years of seniority indicated that participation in archdiocesan or diocesan training developed teacher leadership capacity in their schools more than teachers (M=3.10) with 6-10 years of seniority. Another statistically significant result occurred between teachers with 16-20 years of seniority and teachers with 6-10 years of seniority (p=.009). Teachers (M=3.89) with 16-20 years of seniority indicated that participation in archdiocesan and diocesan training developed teacher leadership capacity in their schools more than teachers (M=3.10) with 6-10 years of seniority.

Table 43

Effectiveness: Years of Seniority (at Current School) and Archdiocesan or Diocesan Training

Year of Seniority (at Current School)	Significance
6-10 years to 11-15 years	.217
6-10 years to 0-5 years	.154
6-10 years to Over 20 years	.003**
6-10 years to 16-20 years	.009**
11-15 years to 0-5 years	.777
11-15 years to Over 20 years	.081
11-15 years to 16-20 years	.119
0-5 years to Over 20 years	.182
0-5 years to 16-20 years	.221
Over 20 years to 16-20 years	.966

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Effectiveness: setting and college courses. Table 44 refers to the question: *Please respond how well each of these professional development activities (college courses) has developed teacher leadership capacity in your school.* The setting was statistically significant (p=.006). The mean (M=4.14, n=7) of teachers in a rural setting was the highest, followed by the mean (M=3.48, n=27) of teachers in an urban setting. The teachers in the suburban setting had the lowest mean (M=3.02, n=53). The difference between rural and suburban settings was statistically significant (p=.004). Teachers (M=4.14) in the rural settings reported that college

courses developed teacher leadership capacity in their schools more than teachers (M=3.02) in suburban settings.

Table 44

Effectiveness: Setting and College Courses

Setting	Significance
Suburban-Urban	.051
Suburban-Rural	.004**
Urban-Rural	.098

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Effectiveness: setting and online courses or modules. Table 45 refers to the question: *Please respond how well each of these professional development activities (online courses or modules) has developed teacher leadership capacity in your school.* The setting was statistically significant (p=.006). The mean (M=3.86, n=7) of teachers in a rural setting was the highest, followed by the mean (M=3.72, n=29) of teachers in an urban setting. The teachers in the suburban setting had the lowest mean (M=3.19, n=70). A statistically significant result was found between rural and suburban settings (p=.004). Teachers (M=3.86) in the rural setting indicated that online courses or modules developed teacher leadership capacity more than teachers (M=3.19) in suburban settings.

Table 45

Effectiveness: Setting and Online Courses or Modules

Setting	Significance
Suburban-Urban	.004**
Suburban-Rural	.059
Urban-Rural	.795

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Effectiveness: year of the National Blue Ribbon Award and college courses. Table 46 refers to the question: *Please respond how well each of these professional development activities (college courses) has developed teacher leadership capacity in your school.*

Table 46

Effectiveness: Year of the National Blue Ribbon Award and College Courses

Year of the National Blue Ribbon Award	Significance
18-16	.875
18-15	.226
18-17	.002**
16-15	.267
16-17	.002**
15-17	.112

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

The year of the National Blue Ribbon Award was statistically significant (p=.005). The mean (M=3.80, n= 25) of year 2017 was the highest, followed by the mean (M=3.31, n=16) of year 2015, and the mean (M=2.96, n=25) of year 2016. The year 2018 had the lowest mean (M=2.90, n=21). Teachers (M=3.80) awarded the National Blue Ribbon Award in 2017 indicated that college courses developed teacher leadership capacity more than teachers who were award-winners in 2018 (M=2.90, p=.002).

A second statistically significant result was reported between the teachers awarded in 2017 and teachers awarded in 2016 (p=.002). Teachers (M=3.80) awarded the National Blue Ribbon Award in 2017 indicated that college courses developed teacher leadership capacity more than teachers (M=2.96) who were award-winners in 2016.

Effectiveness: year of the National Blue Ribbon Award and online courses or modules. Table 47 refers to the question: *Please respond how well each of these professional development activities (online courses or modules) has developed teacher leadership capacity in your school*. The year of the National Blue Ribbon Award was statistically significant (p=.003). The mean (M=3.89, n=27) of year 2017 was the highest, followed by the mean (M=3.44, n=18) of year 2015, and the mean (M=3.17, n=30) of year 2018. The year 2016 had the lowest mean (M=3.10, n=31).

Table 47

Effectiveness: Year of the National Blue Ribbon Award and Online Courses or Modules

Year of the National Blue Ribbon Award	Significance
16-18	.835
16-15	.202
16-17	.001**
18-15	.276
18-17	.001**
15-17	.089

Note. * $p \leq 0.05$; ** $p \leq 0.01$; Pairwise Comparison of Setting using the Mann-Whitney Test

Teachers awarded the National Blue Ribbon Award in 2017 (M=3.89) indicated that online courses and modules developed teacher leadership capacity more than teachers (M=3.10) who were award-winners in 2016 (*p*=.001). A second statistically significant result occurred between the teachers awarded in 2017 and teachers awarded in 2018 (*p*=.001). Teachers awarded the National Blue Ribbon Award in 2017 (M=3.89) indicated that online courses and modules developed teacher leadership capacity more than teachers (M=3.17) who were award-winners in 2018.

Effectiveness: year of the National Blue Ribbon Award and instructional coaching. Table 48 refers to the question: *Please respond how well each of these professional development activities (instructional coaching) has developed teacher leadership capacity in your school.* The year of the National Blue Ribbon Award was statistically significant (*p*=.047). The mean (M=4.19, *n*=26) of year 2017 was the highest, followed by the mean (M=3.68, *n*=25) of year 2015, and the mean (M=3.67, *n*=33) of year 2016. The year 2018 had the lowest mean (M=3.66, *n*=38).

Teachers (M=4.16) awarded the National Blue Ribbon Award in 2017 indicated that instructional coaching developed teacher leadership capacity more than teachers (M=3.67) who were award-winners in 2016 (*p*=.012). A second statistically significant result occurred between

the teachers awarded in 2017 and the teachers awarded in 2018 (p=.016). Teachers (M=4.16) awarded the National Blue Ribbon Award in 2017 reported that instructional coaching developed teacher leadership capacity more than teachers (M=3.66) who were award-winners in 2018.

Table 48

Effectiveness: Year of the National Blue Ribbon Award and Instructional Coaching

Year of the National Blue Ribbon Award	Significance
16-18	.835
16-15	.756
16-17	.012*
18-15	.898
18-17	.016*
15-17	.039

Note. * $p \leq 0.05$; Pairwise Comparison of Setting using the Mann-Whitney Test

Lastly, a third statistically significant result was found between teachers awarded in 2017 and teachers awarded in 2015 (p=.039). Teachers (M=4.16) awarded the National Blue Ribbon Award in 2017 reported that instructional coaching developed teacher leadership capacity more than teachers (M=3.68) who were award winners in 2015. For this output, the Kruskal-Wallis test is significant (p=.047) and the Mann-Whitney post hoc test is significant (p=.012, p=.016, p=.039), but the significance values that have been adjusted by the Bonferroni correction for multiple tests are not significant. As with earlier examples, I opted to list this as a statistically significant finding.

Research Question 5: What are the perceptions of administrators about building teacher leadership capacity in their schools?

For the administrators' survey, two open-ended questions focused on promoting teacher leadership and building teacher leadership capacity in the schools. Question 48 asked: *Do you believe that teacher leadership should be promoted in the school? Why or why not?* and Question 49 inquired: *Do you build teacher leadership capacity in your school? If so, how do*

you build teacher leadership capacity? While 57 administrators had the opportunity to share their perspectives, 52 administrators responded yes or affirmative, one was "I guess so", and four respondents left the questions unanswered.

Major Categories and Exemplars

After completing the initial coding process for the first question, two primary categories, *Teachers' Empowerment* and *Assistance for the Administrato*r, emerged as the most noted by the respondents. For the purpose of this research study, teachers' empowerment was defined as, "value teachers' input and voice; want teachers to express ideas and perspectives; take risks, make decisions, not all teachers are leaders." As noted in Table 49, the category of *Teachers' Empowerment* was cited 12 times (each in individual, different coding units) from the administrators' perspectives.

Table 49

Research Question #48: Promotion of Teacher Leadership

Categories	Number of Citations
Academic Excellence	9
Assistance for the Administrator	*11*
Career Satisfaction	1
Collaboration	6
Leadership Culture	6
Leadership Development	9
Leadership Succession	10
Modeling Leadership	4
Ownership	4
School Advancement	10
Teachers' Empowerment	*12*
Teacher Leadership Needed	5

As explained by one school leader, "Teacher leadership encourages collegiality, encourages professional growth, and gives acknowledgement to a teacher's willingness to take risks. All teachers should be encouraged to be leaders and expand upon and communicate the

school's mission." Another administrator noted, "Teachers need to have an opportunity to express and explore ideas. That can only happen if they feel empowered." Several school leaders echoed one principal's perspective about teacher empowerment who stated, "every teacher is a leader and these skills need to be fully developed."

Secondly, *Assistance for the Administrator* was cited as a rationale for promoting teacher leadership. For this research study, *Assistance for the Administrator* was defined as "providing help with duties or tasks, provide support, assume responsibility as a manager and leader." As noted on Table 49, the category of *Assistance for the Administrator* was cited 11 times in the promotion of teacher leadership.

School leaders value the teachers' assistance in leadership. One administrator noted, "It is impossible for an administrator to carry out all leadership tasks, so a team of teacher leaders is necessary to promote buy-in regarding initiatives and continuous improvement." In looking at school advancement, a principal explained, "Teacher leaders can assist in many duties that often fall to the principal and ensure many more things can get accomplished." The research indicates that *Teachers' Empowerment* and *Assistance for the Administrator* were viewed by many of the study's administrators as instrumental in promoting teacher leadership in the school environment.

Administrators responded to question 49 in the survey, which inquired, *Do you build teacher leadership capacity in your school? If so, how do you build teacher leadership capacity?* Fifty-one responses were yes or affirmative, two stated "I try", and four responses were unanswered. After completing the initial coding process, two primary categories, *Formal Leadership* and *Informal Leadership,* emerged as the most noted by the respondents. For the purpose of this research study, formal leadership was defined as "an individual who holds an

official leadership title; appointed role; the framework that the school utilizes for leadership; hierarchy; mentoring cited; utilize observation, discussion, modeling, and coaching to assist subordinates or inexperienced colleagues." As noted on Table 50, the theme of *Formal Leadership* was cited 27 times in the administrators' perspectives.

Table 50

Research Question #49: Building Teacher Leadership Capacity

Categories	Number of Citations
Build Relationships	4
Committees	7
Communication	14
Excellence	7
Leadership Affectiveness	9
Leadership Development	7
Leadership Formal Roles	*27*
Leadership Identification	5
Leadership Informal Roles	*21*
Leadership Succession	2
Leadership Tasks	12
Leadership Visionary	1
Ownership	4
Professional Development	11
Professional Learning Communities (PLC)	11
Reflection	1
Responsibilities	11

As an essential component to building teacher leadership capacity, *Formal Leadership* was described by one elementary-level administrator, "I put teachers in positions of leadership based on their skill sets, willingness to take on tasks, standing in the school community, and their desire to work towards improving our educational, social/emotional, and athletic offerings." Another school leader emphasized the importance of *Formal Leadership* through leadership roles and tasks, "I try to task identified teacher leaders with leads on committees or duties as mentors. This provides them the opportunities to lead other staff members and new teachers. It helps them define what our school direction will be."

Additionally, *Informal Leadership* was often cited as an important way to enhance teacher leadership capacity. For the purposes of this research study, informal leadership was defined as "an individual who leads without a formal leadership title; opportunity cited; chance to participate in a leadership role or to complete a leadership task." As noted on Table 50, the category of *Informal Leadership* was cited 21 times from the administrators' perspectives.

In order to effectively enact *Informal Leadership*, the practice of establishing meaningful relationships appears to be a foundational concept with *Informal Leadership*. One administrator noted, "Over the years, I feel that I have built strong relationships with most of the teachers that have been in the school and from those relationships teachers can be encouraged to take on informal school leadership roles that fit their skill set." An elementary leader emphasized the importance of relationship-building in the school environment as follows:

> I believe that all the training, mentoring, collaboration, technology, Professional Learning Communities, etc. all play a role in leadership growth and development. However, I also feel strongly that building a meaningful relationship is the key ingredient that opens the door to create an environment where educators' vulnerability in learning will allow for all those programs to work. Through building these relationships, the majority of my teachers have taken leadership roles in our school. They are empowered to make decisions based on our school and student missions.

The above data indicates that formal and informal leadership were important criteria in building teacher leadership among the administrators who participated in this study.

In addition to the primary categories of *Teachers' Empowerment, Assistance for the Administrator, Formal Leadership and Informal Leadership*, the administrators also cited a handful of categories that were not as strong, but certainly worth noting. Administrators referred

multiple times to these four categories: *effective communication, the faculty's participation in professional learning communities, completion of leadership responsibilities and tasks*, and *professional development*. These four categories play a supporting role in the development of teacher leadership capacity in a vibrant school community.

Effective communication plays a role in teacher leadership as described by one administrator, "We build teacher leadership capacity by sharing what we do with each other and teachers know which teachers are in charge of what in our school." Another administrator added, "We encourage teacher leaders at each level to work with the teachers in order to facilitate planning, calendars, schedules, and have a formalized way to communicate with administration." Effective communication facilitates teamwork as one administrator noted, "We have a Leadership Team that meets regularly. They each meet with their teams weekly. The constancy helps build communication throughout the school."

Professional Learning Communities or PLCs can become the cornerstone for advancing teacher leadership capacity. One administrator shared, "Teacher leadership is built through professional learning communities, committee work, mentoring, and professional development." The impact of professional learning communities is school-wide as one administrator explained, "We share what is learned in teams that can practice with their colleagues in order to positively impact our students academically." Sometimes, professional learning communities extend beyond the school, as an administrator explained, "We participate in a local university PLC group monthly. The team of teachers attending these meetings works on curriculum development in a certain area. They bring back information to their grade level teams and align the curriculum."

Leadership responsibilities and tasks are an essential link in the schoolwide process of leadership development. One principal commented, "We use committees often to build leadership and delegate responsibilities to all teachers, so that the ownership of the entire program becomes reality." Another principal added, "Mentoring and delegating responsibilities are the tools that I have found to be most positive in building leadership among teachers with whom I work." One administrator shared the teachers' involvement in the school community, "Teachers are asked to head certain school projects or activities that involve students, teachers, and at times, parents." Teachers are involved in numerous tasks throughout the school. One administrator explained, "We build it (teacher leadership capacity) when completing projects, such as AdvancEd accreditation, PLC groups, and diocesan directives. Additionally, school leaders noted several other tasks that involve teachers' leadership skills, such as school improvement team, grade level meetings, subject team meetings, and curriculum mapping."

Lastly, *professional development opportunities* were highlighted by school leaders. One administrator explained, "Professional development can be utilized to light sparks in faculty to become leaders within their department and school." Some administrators have established the expectation of sharing information learned at professional development opportunities, such as, "I try to offer as many opportunities for professional development as I can with the expectation that the person come back and share the information." Another administrator added, "Teachers are also encouraged to attend workshops and then present their newly acquired learning to the rest of the staff."

The open-ended responses provided additional insight to promoting teacher leadership and developing teacher leadership capacity in the school environment. Through this coding process, the categories of *Teachers' Empowerment, Assistance for the Administrator,* and

Formal Leadership and Informal Leadership emerged as essential components of schoolwide leadership. In the end, one administrator expressed informal leadership as, "We are constantly looking for opportunities to engage teachers in leadership positions, activities and training."

Summary

In Chapter Four, the descriptive results described the participants in this research study and the response rate. The quantitative results were explained in detail utilizing descriptive or inferential statistics. Lastly, the qualitative responses were summarized using thematic analysis. In the next chapter, the summary of the research study, including the major findings, implications for action, and recommendations for further research will be discussed.

CHAPTER FIVE
CONCLUSIONS

Chapter Five discusses conclusions and implications based on the results of the study. The chapter also links the literature review and the collected research data about the valued qualities of effective teacher leaders from the perspective of the administrators and the viewpoints of the teachers. Chapter Five will begin with a summary of the study including a brief overview of the problem, the purpose of the study, and the research questions. The following sections will also address the review of methods and the major findings. Chapter Five will continue with the findings related to literature, surprises, and conclusions including the implications for action, recommendations for further research, and concluding remarks.

Overview of the Problem

Exemplary high-performing schools continue to prevail as a national priority. The United States Department of Education manages the National Blue Ribbon Schools Program, which recognizes exemplary high-performing schools, especially in the areas of outstanding leadership and academic excellence. In reviewing past studies on school leadership, the traditional model of school leadership focuses on a hierarchical structure with the principal as the primary leader. The principal sets the tone for the school, establishes goals, leads the curriculum and academics, and monitors the finances (Nappi, 2004). Under this traditional model, the focus is on determining the leaders and followers, so that one person impacts the direction and outcomes of the school (Helterbran, 2010). In the traditional model, the teachers have specific job descriptions and formal responsibilities related to the classroom (Helterbran, 2010). As a result, teachers are isolated in their work and engage in minimal collaboration (Lee, Sachs &Wheeler, 2014).

Realizing the drawbacks of the traditional model, a new model of school leadership, called distributed leadership, has emerged in schools. The distributed leadership model engages administrators and teachers in the advancement of the school. Distributed leadership in a school is evidenced by professional learning communities, high student achievement, and collaborative learning (Wilhelm, 2013). In addition, teachers are identified and developed as teacher leaders becoming a critical component to the school's model of distributed leadership.

In reviewing professional literature regarding high-performing schools, minimal research studies have been conducted on the National Blue Ribbon Schools (as designated by the United States Department of Education). Furthermore, research on Catholic elementary schools with the designation of the National Blue Ribbon Award is even rarer. The problem was a lack of information about teacher leadership, such as the identification and qualities of teacher leaders and the frequency and effectiveness of professional development for teacher leaders, in Catholic elementary schools that have achieved the highest accolade by the United States Department of Education. As high-performing schools in the country, some of the administrators and teachers in these Catholic elementary schools enlightened the profession with best practices about teacher leadership in their schools.

My rationale for conducting this research was to unlock the best practices involving teacher leadership in the selected National Blue Ribbon Schools. Specifically, teachers and administrators identified the most valued qualities as important for effective teacher leaders from their perspectives. Both teachers and administrators reported the types of professional development that teacher leaders received in their school and indicated the value of each listed professional development opportunity for the teacher leaders. Additionally, administrators completed short open-ended questions about promoting and building teacher leadership capacity

in their schools. The importance of this study was to provide insight about the qualities of teacher leaders and the provided (frequency) and valued (effectiveness) professional development for teacher leaders in National Blue Ribbon award-winning Catholic elementary schools.

Purpose of the Study

The purpose of this study was to survey the administrators and teachers to determine the most valued qualities for effective teacher leaders. The differences in what administrators value about teacher leaders' qualities were compared to the qualities that teachers value in the schools' teacher leaders. Then, the differences in values to build teacher leadership were compared among the teachers to all independent variables. From the administrators' survey, two open-ended questions solicited the administrators' perceptions about promoting and building teacher leadership capacity in their schools. The independent variables in my study were: the participants' roles in the school, either administrator or teacher; gender; years of seniority (at current school); total years of experience (in education); school setting (suburban, urban, rural), student population of the school, the socio-economic demographics of the student population, and the year of the National Blue Ribbon Award. The dependent variables were the measurement of the value given to a list of qualities of teacher leaders and the identification and measurement of the value given to a list of professional development activities provided to teacher leaders on a survey instrument.

Research Questions

The research questions that guided my study were:

1. What qualities do administrators and teachers most value to build teacher leadership capacity in schools?

2. a.) What are the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?
3. According to administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?
4. a.) What are the differences in their perceptions of professional development according to administrators and teachers?

   b.) When comparing teachers to teachers across all independent variables, what are the differences in their perceptions about professional development?
5. What are the perceptions of administrators about building teacher leadership capacity in their schools?

Review of the Methods

This section will review the instrumentation, the sample, and the data analysis of this research study. The research design basically represented a quantitative study with a slight qualitative element through two open-ended questions within the Qualtrics survey. The survey responses were entered into IBM's SPSS predictive analytics software. The data analyses for this research study included descriptive statistics and inferential statistics as well as first cycle qualitative analysis.

For this research study, the school and its participants needed to qualify in these three areas:

1. Only Catholic elementary schools that had been acknowledged with the National Blue Ribbon Award from 2015-2018 were incorporated in the population. An elementary

school was defined as a school that has any combination of an elementary configuration, ranging from pre-school through eighth grade.

2. High schools with a grade configuration of ninth through twelve grades were eliminated from the sample.
3. The administrators and teachers participating in the study must have been employed at the award-winning school at least one year prior to achieving the National Blue Ribbon Award.

From 2015-2018, there were 101 award-winning Catholic schools that qualified to participate in the study. After three schools declined, a total of 98 schools were invited to participate in this study. Nationally, administrators from 38 schools participated in the study (38 of 98 schools; 38.8%) and teachers from 52 schools were engaged in the study (52 of 98; 53%). However, I was unable to calculate a more exact response rate as administrators failed to consistently report the number of possible administrators and teachers for this research study. Participants were represented from the District of Columbia and 17 states (Connecticut, Delaware, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Texas, Wisconsin).

Descriptive statistics were analyzed for each independent variable and results were shared via written explanation and tables. For Research Question 1, I used descriptive statistics, reporting the mean data from highest to lowest and utilizing confidence intervals. For Question 2a, I utilized the Wilcoxon Signed Ranks Test, a non-parametric test, to determine the qualities that were statistically significant according to administrators' and teachers' responses in building teacher leadership capacity. The Wilcoxon Signed Ranks Test was used because I was only comparing two means, those of administrators to the means of teachers.

For Question 2b, I used the Kruskal-Wallis test, a non-parametric test, comparing teachers to teachers across all independent variables to determine the differences in values about the qualities to build teacher leadership in their schools. Due to the small sample and the possibility of error creeping in, I utilized non-parametric statistics for the entire data analysis. First, the Kruskal-Wallis test was run to determine initial significance. Continuing with non-parametric statistics, I used the Mann-Whitney post hoc test to determine the specific differences between three or more group means. For Question 3, due to the imbalance of the number of administrators compared to the number of teachers, factor analysis was not used for this data set. Therefore, I used descriptive statistics, reporting the mean data from highest to lowest and utilizing confidence intervals

For question 4a, I utilized the Wilcoxon Signed Ranks Test, a non-parametric test, to determine the statistically significant differences in their perceptions of professional development according to administrators and teachers. For Question 4b, I used the Kruskal-Wallis test, a non-parametric test, comparing teachers to teachers across all independent variables to determine the differences in their perceptions about professional development. Due to the small sample and the possibility of error creeping in, I utilized non-parametric statistics for the entire data analysis. First, the Kruskal-Wallis test was run to determine initial significance. Continuing with non-parametric statistics, I used the Mann-Whitney post hoc test to determine the specific differences between three or more group means.

For question 5, two open-ended questions focused on promoting teacher leadership and building teacher leadership capacity in the schools. I organized and prepared the data for analysis and then completed only the first cycle coding process. During the first cycle coding process, I read and reviewed the data several times, reflected on the respondents' overall

meaning and specific ideas, and highlighted recurring topics. Lastly, I created categories and definitions for the categories, sorted the responses, and noted the positive and negative connotations. Finally, the top two responses for each question were noted and exemplars were cited in the data analysis.

Major Findings

In Chapter Four, the complete list of the 43 significant findings were itemized and comprehensively discussed. These findings were organized by the independent variables (gender, setting, student population, seniority, total years of experience, year of the National Blue Ribbon Award). This section highlights only the major findings in this research study.

Gender.

- Female teachers indicated that teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than male teachers in their National Blue Ribbon schools.

Setting.

- The teachers in rural settings reported that teachers who are informal leaders promoted a higher level of openness and trust within the faculty more than leaders in urban settings.
- Teachers in the rural settings indicated that college courses and online courses or modules were provided as professional activities and developed teacher leadership capacity more than teachers in suburban settings.
- Teachers in urban settings reported that college courses, online courses or modules, and individual or group research projects were provided professional development activities more than teachers in suburban settings.

- Teachers in suburban settings reported that teachers who are informal leaders encourage horizontal alignment and coordination between teachers on the same grade level more than teachers in urban settings.

Student population.

- Teachers in smaller schools (1-300 and 301-600 students) reported that professional learning communities and internships (induction programs such as supervising a student teacher) were used more frequently to foster teacher leadership than teachers in schools with over 600 students.
- However, in the largest schools (over 900 students), teachers indicated that observations of other teachers' classes were more frequently used to foster teacher leadership in the schools than in schools with less than 900 students.
- In schools with 301-600 students and over 900 students, the teachers indicated that teachers who are informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than teachers with student populations of 1-300 students.

Seniority.

- Teachers having over 5 years of seniority considered themselves as a "leader of teachers" more than teachers with 0-5 years of seniority.
- Teachers with the least seniority (0-5 years) reported that instructional coaching developed teacher leadership capacity more than teachers with 6-10 years, 11-15 years, and over 20 years of seniority.
- Teachers with the most seniority (over 20 years) indicated that mentoring developed teacher leadership capacity more than teachers with less seniority (6-20 years).

Total years of experience.

- Teachers with 0-5 years of experience indicated that other teachers in their school were considered teacher leaders and took on an informal leadership role more than experienced teachers (16-20 years).
- Teachers with over 20 years of experience considered themselves "teacher leaders" more than teachers with 0-5 and 11-15 years of experience.
- Teachers with over 20 years of experience indicated that other teachers in their school were "teacher leaders", took on informal leadership roles, and reported the process of building teacher leadership was more important than teachers with 16-20 years of experience.
- Teachers with over 20 years of experience reported that informal teacher leaders actively sought out training and professional development more than less experienced teachers (6-20 years).
- Teachers with over 20 years of experience indicated that workshops were provided as professional development more than teachers with 11-15 years and 16-20 years of experience.

Year of the National Blue Ribbon Award.

- Teachers who attained the award in 2017 reported that professional development, such as college courses, online courses or modules, internships (defined as induction programs like student teaching), individual or group research projects, professional learning communities, and instructional coaching, were provided in the schools more than award-winning teachers in 2015, 2016, and/or 2018.

- Teachers who achieved the award in 2017 indicated that college courses, online courses or modules, and instructional coaching developed teacher leadership capacity in schools more than award-winning teachers in 2015, 2016, and 2018.

Findings Related to Literature

This section connects my literature review to the research finding about the valued qualities of effective teacher leaders from the perspective of the administrators and the viewpoints of the teachers. Additionally, the professional development activities that were provided and valued according to administrators and teachers are also summarized and connected to the literature review. Finally, the perceptions of administrators about building teacher leadership capacity in their schools is highlighted in the last research question. This section is arranged according to each question in my research study.

Research Question 1: What qualities do administrators and teachers most value to build teacher leadership capacity in schools?

The first research question was developed to understand the qualities that administrators and teachers most value to build teacher leadership capacity in their schools. Several survey questions were used to answer this question based on the were statistically significant findings. The qualities most valued to build teacher leadership capacity in schools included: *identifying self and others as teacher leaders, taking an informal teacher leadership role, coaching and assisting new teachers*, and *promoting an atmosphere of openness and trust within the faculty*.

These four qualities most valued to build teacher leadership capacity were supported in my literature review. In order to build teacher leadership capacity, teachers need to identify the qualities in themselves and others as teacher leaders. Teacher leadership qualities include strong interpersonal relationship skills and effective communication with administrators, teachers, and

students (Nappi, 2014; Henderson & Barron, 1995). Besides excellent organizational skills, analytical skills, and outstanding time management skills, teacher leaders create a climate conducive to academics, demonstrate exceptional effort, and envision beyond their routine tasks (Augustine-Shaw, 2015; Rogers, 2005; Conley & Muncey, 1999).

Both administrators and teachers value teachers when they take on an informal leadership role in the school. For the purpose of this research study, informal leadership was defined as "an individual who leads without a formal leadership title; chance to participate in a leadership role or to complete a leadership task." The role of the teacher leader can be informal and emergent and is usually driven within each teacher (Helterbran, 2010). Through their high-performance standards and actions, the teacher leaders' influence has the potential to reach colleagues, alter the school environment, and touch the school community (Frost & Harris, 2003).

The quality of coaching and assisting new teachers was valued by administrators and teachers to build teacher leadership capacity in schools. The research supports the value of coaching and assisting new teachers. Experienced teachers who see themselves and colleagues as leaders can launch a paradigm shift in school improvement efforts through their collaborating, learning, and teaching with novice teachers and other teacher leaders (Helterbran, 2010).

Lastly, creating an atmosphere of openness and trust within the faculty was valued by this study's administrators and teachers to build teacher leadership in their schools. In promoting an atmosphere of openness and trust within the faculty, Lovey (2005) emphasized that open and honest communication encourages the admission of mistakes and problem-solving in small groups, which promotes a healthy school climate. The development of distributed leadership takes time and clearly requires trust and collaboration in order to effectively engage teachers and advance programs (Augustine-Shaw, 2015; Harris, 2015; Wilhelm).

Research Question 2a: What are the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools?

This research question sought to understand the differences in what administrators compared to what teachers value about the qualities to build teacher leadership in their schools. Three qualities were determined as statistically significant according to the administrators' and teachers' responses when building teacher leadership capacity in their schools. These three qualities centered on *teaching methods and materials, the process of building teacher leadership,* and *viewing oneself as a leader of teachers or teacher leader*.

Both administrators and teachers reported that teachers who are considered informal leaders assist teachers in finding and developing teaching methods and materials in their schools. However, administrators believe that this assistance is more prevalent than teachers believe it is. Through their responses, administrators indicated that the process of building teacher leadership is considered more important than teachers' responses. Perhaps administrators, from their perspective, understand and value the importance of building teacher leadership via distributed leadership more than teachers do. Distributed leadership has proven benefits in schools, such as a link to school culture and school improvement; in other words, distributed leadership advances the organization by launching and sustaining school improvement as the result of teacher leadership (Harris, 2005; Cranston, 2000).

Additionally, administrators and teachers reported their perspectives on viewing oneself as a leader of teachers or teacher leader. Administrators believed that teacher leadership occurs at higher levels than teachers do at their schools. Research supports that the teacher leaders' impact is determined by how they see their leadership roles and their potential influence in the school (Frost & Harris, 2003).

Research Question 2b: When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?

This research question was developed to gain insight about the teachers' differences in values about the qualities to build teacher leadership in their schools. As a reminder, the independent variables for this question included: gender, school setting (suburban, urban, rural), student population, seniority (at current school), and total years of experience in education. For the independent variable of gender, female teachers indicated that teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than male teachers.

For the independent variable of setting, teachers in suburban settings reported that teachers who are informal teacher leaders encourage horizontal alignment and coordination between teachers of the same grade level more than teachers in urban settings. The teachers in the rural settings reported that teachers who are informal leaders promoted a higher level of openness and trust within the faculty than leaders in urban settings. Perhaps teachers in the rural settings believe that teacher leaders develop professional openness as they learn from their colleagues through conferences, peer instruction, observations, and mentoring programs for inexperienced or struggling teachers (Printy & Marks, 2004).

For the independent variable of student population, in schools with both 301-600 students and over 900 students, their teachers indicated that teachers who are informal leaders encourage horizontal alignment and coordination between teachers of the same grade level more than teachers with student populations of 1-300 students. However, research indicated that principals in rural schools affirmed the collaboration in their smaller schools. These principals remarked

that “more intimate, familial professional cohorts present greater opportunity for the creation of collaborative professional cultures within the school - focused on teaching strategies, assessment literacy, and school-wide, data-driven decision-making” (Renihan & Noonan, 2009, p. 5).

For the independent variable of seniority, the experienced teachers (6-10 years, 11-15 years, 16-20 years, over 20 years), considered themselves as “leader of teachers” more than teachers with 0-5 years of seniority. In these award-winning schools, teachers with more than 5 years of seniority consider themselves as “leader of teachers” who utilize their leadership skills in the classroom and throughout the school. As experienced teachers mentored teachers with less than 5 years of seniority, experienced teachers “were motivated by the opportunity to express altruistic value, to provide affective support, to grow professionally through self-actualization, and to enhance a colleague’s growth and development” (Garza, Ramirez & Ovando, 2009, p. 5).

Teachers with 0-5 years of experience indicated that other teachers in their school were considered teacher leaders and reported that teachers took on informal leadership roles more than teachers with 16-20 years of experience. These teachers with 0-5 years of experience were mindful of their colleagues who were teacher leaders and had informal leadership roles in the school. The colleagues highly regard the expertise and educational practice of informal leaders as they work on educational practices, instructional problems, and school improvement (Lai & Cheung, 2015).

Teachers with over 20 years of experience indicated that they considered themselves as “teacher leaders” more than teachers with 0-5 years of experience and teachers with 11-15 years of experience. Additionally, teachers with over 20 years of experience indicated that other teachers in their school were considered teacher leaders and the process of building teacher

leadership was more important in their school than teachers with 16-20 years of experience. Perhaps the most experienced teachers view teacher leadership as an act of professionalism and empowerment that can positively impact students and colleagues (Helterbran, 2010). Moreover, teachers with over 20 years of experience took on an informal leadership role more and actively sought out training and professional development more than teachers with 16-20 years of experience.

Research Question 3: According administrators and teachers, what professional development is provided and valued to build leadership capacity among teachers in schools?

Provided professional development (frequency). This research question sought to understand what professional development is provided to build leadership capacity among administrators and teachers in schools. Both administrators and teachers ranked these six provided professional development activities, in terms of frequency, as: *Mentoring, Teacher Groups (Vertical or Horizontal), Teacher Committee or Task Force, Workshops, Archdiocesan or Diocesan Training,* and *Online Courses or Modules.* For teacher leaders, the benefit of professional learning is to develop confidence, leadership skills, and talents in their leadership role (Helterbran, 2010).

Researchers have also indicated the importance of providing professional development activities to build teacher leadership capacity in schools. For mentoring, Augustine-Shaw (2015) indicated that mentoring programs can guide teachers as they learn to increase their leadership capacity and plan for professional development opportunities. For teacher groups (vertical or horizontal) and teacher committee or task force, the teacher representatives focus on their

professional involvement in the school's instructional methods, curriculum alignment, discipline procedures, and school improvement (Lambert, 2002; Conley & Muncey, 1999).

Valued professional development (effectiveness). This research question sought to understand what professional development is valued to build leadership capacity among teachers in schools. Both administrators and teachers cited *Mentoring* as the most valued (effectiveness) professional development. Research concurred the importance of mentoring to build teacher leadership capacity among teachers in schools. Augustine-Shaw (2015) cited that the purpose of mentoring programs is to build confidence of new teachers by teaching them to be courageous risk-takers, to keep learning as a priority, and to challenge current viewpoints, including the school's culture.

In addition to mentoring, teachers reported the most valued professional development, as *Teacher Groups (Vertical and Horizontal Teams), Teacher Committee or Task Force,* and *Instructional Coaching.* Both the *Teacher Groups (Vertical and Horizontal Teams) and Teacher Committee or Task Force* require teachers to work in collaborative teams in their schools. In order to be a productive team member, teacher leaders believe that teamwork is valuable, practicing confidentiality and flexibility as highly-regarded professionals (Printy & Marks, 2004; Conley & Muncey, 1999).

However, instructional coaching is valued, but not consistently provided, as professional development to build teacher leadership in schools. Administrators need to incorporate instructional coaching as a professional development activity, since research supports instructional coaching as a valued means to build teacher leadership capacity. With dedicated time during the school day, teacher leaders can share educational practices and teach professional skills to others (Lai & Cheung, 2015; Wilhelm, 2013; Frost & Harris, 2003).

On the other hand, administrators provide frequent professional development, such as *workshops, archdiocesan or diocesan, training, conferences, and online training or modules*. Yet, these professional development activities were reported as seemingly not as valued (effective) by administrators and teachers in the schools. The research stated that induction programs, including professional organizations, training programs, and virtual workshops, provide opportunities to develop new skills for new teacher leaders (Helterbran, 2010; Rogers, 2005). Perhaps, the workshops, trainings, conferences, and virtual workshops, courses, or modules provide skill training for new leaders, but are not as effective as other types of professional development, such as mentoring, teacher groups, and teacher committees, which could build collaborative relationships among the teachers. Through the teachers' engagement in school leadership, internal professional development by communicating and sharing professional knowledge and best practices becomes part of the school culture (Harris, 2005; Richardson, 2003).

Research Question 4a: What are the differences in their perceptions of professional development according to administrators and teachers?

This research question was to determine the differences in their perceptions of professional development according to administrators and teachers. As reported by administrators and teachers, one difference, *Professional Learning Community (PLC),* emerged in their perceptions of professional development to build teacher leadership capacity (p=.042). The administrators agreed that professional learning communities build teacher leadership capacity, scoring 4.07 on the Likert scale. However, the teachers reported a lower mean (M= 3.22) concerning the effectiveness of professional learning communities to build teacher

leadership capacity in their schools. Administrators believe that the effectiveness of professional learning communities is occurring at higher levels than teachers do in their schools.

DuFour, DuFour, Eaker, and Many (2006) have defined professional learning communities "as educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve" (p.14). According to Printy & Marks (2004) and Li (2015), trust is the foundation to a professional learning community and a positive school environment. "If teachers and school principals are not involved in determining the needs of professional development in their schools, then it is unlikely that teachers will participate in the approach that does not align with their values" (Trilaksono & Purusottama, 2019, p. 53).

Team leaders of the professional learning community should discuss the shared leadership roles and the desired team behaviors (Wilhelm, 2013). Team norms and skills include identifying professional development and determining expectations for collaboration (Vernon-Dotson & Floyd, 2012). Clearly, the advantages of teacher teams include sharing instructional methods and reflecting on the effectiveness of instructional practices (Vernon-Dotson & Floyd, 2012).

Research Question 4b: When comparing teachers to teachers across all independent variables, what are the differences in their perceptions about professional development?

This research question was developed to gain insight about the teachers' differences in their perceptions about provided (frequency) and valued (effectiveness) professional development in their schools. The independent variables for this question included: school setting (suburban, urban, rural), student population, seniority (at current school), the total years of experience in education, and the year of the National Blue Ribbon award.

For the independent variable of school setting, teachers in rural settings indicated that college courses and online courses or modules were provided as professional development activities and developed teacher leadership capacity in their schools. Given the rural setting, it is reasonable that college courses and online courses or modules would be frequently provided and seem to be effective professional development for these teachers. However, teachers in the urban setting reported that online courses or individual or group research projects were provided, but not indicated as valued, professional development activities.

For the independent variable of student population (1-300 students), teachers reported that college courses, internships (defined as induction programs, such as student teaching), and professional learning communities were provided more frequently than schools with larger populations (301-600; 601-900; over 900 students). Teachers who worked in schools with the student population of 301-600 students indicated that internships and professional learning communities were provided more than teachers who worked in schools with 601-900 and over 900 students. Perhaps, by utilizing college courses, internships (induction programs), and professional learning communities, (Helterbran, 2010) teacher leaders looked for continuous professional knowledge and opportunities to use their creativity throughout the school.

In rural schools with typically smaller school populations, successful principals have a collaborative leadership style, building relationships with teachers, students, parents, community members, and educational leaders (Preston & Barnes, 2017). According to Preston and Barnes (2017), “Collaborative leadership is founded on the beliefs that people are the most valuable resource of any organization or community” (p. 11). Often in rural settings, principals capitalize on this mindset of collaboration to maximize the outcomes of professional learning communities in their schools. Most principals believe that professional learning communities can contribute to

creating change in their school cultures, empowering teacher to become leaders, promoting trust and respect among the faculty, and influencing outcomes for students' achievement (Willis & Templeton, 2018). Likewise, teachers have expressed the benefits of professional learning communities as gaining insight to the school's vision, feeling trusted by the school leaders, and affecting organizational change (Willis & Templeton, 2018).

Additionally, teachers who worked in schools with over 900 students, indicated that observations of other teachers' classes were more frequently used to foster teacher leadership than schools with less than 900 students. Perhaps an area for future research would be comparing the teachers' professional development in various size schools according to student population (See section on *Recommendations for Future Research)*. My research indicated that in schools with smaller populations (1-330 and 301-600), teachers reported that college courses, internships (defined as induction programs, such as student teaching), and professional learning communities were provided more frequently than schools with larger populations.

For the independent variable of seniority, the teachers with 0-5 years of seniority reported that instructional coaching developed teacher leadership capacity in their schools. Flowers (2019, p. 36) stated "one of the benefits of coaching is the opportunity to see oneself through another's eyes and reflect." The teachers with over 5 years of experience considered themselves as "leader of teachers" more than the teachers with 0-5 years of seniority. Teachers rely on the principal's support and a school culture that accepts teachers' influence and leadership (Cooper, 2016; Li, 2015).

Additionally, teachers with 16-20 years of seniority indicated that workshops were provided as professional development more than teachers with less seniority. The teachers with 16-20 years and over 20 years of seniority reported that participation in archdiocesan or diocesan

training developed teacher leadership capacity more than teachers with 6-10 years of seniority. Teachers with over 20 years of seniority reported that mentoring developed teacher leadership capacity more than teachers with less seniority. As a result of the mentoring partnership, new teachers listen to experienced teachers, ask questions and seek advice, follow their suggestions, and essentially give authority to them (Helterbran, 2010; Rogers, 2005).

For the independent variable of total years of experience, the teachers with 0-5 years of experience indicated that other teachers in their school were considered teacher leaders and took on informal teacher leadership roles. The teachers with over 20 years of experience indicated the process for building teacher leadership was important in their schools. As the most experienced teachers, they considered themselves and other teachers in their school as "teacher leaders", took on an informal teacher leadership role, and actively sought out training and professional development. Perhaps, teachers with such long-term seniority felt responsibility for the decisions and professional development at the school. Wilhelm (2013) stated that another benefit of teacher leadership is teachers feel a strong sense of responsibility for the decisions and vision at the school.

For the independent variable, year of the National Blue Ribbon Award, teachers reported that professional development was provided and valued in their schools. The 2016, 2017, and 2018 award winning teachers indicated that professional learning communities were provided to foster teacher leadership capacity in their schools. In professional learning communities, often known as PLCs, colleagues work collaboratively, learn from each other, focus on professional best practice, and ask questions (Lai & Cheung, 2015).

Furthermore, the 2017 award-winners cited that internships (induction programs, such as supervision a student teacher) and individual or group research projects provided activities to

foster teacher leadership capacity in their schools. According to Jaquith (2013), often, in National Blue Ribbon Schools, administrators have promoted a collaborative culture where "instructional coaching positively impacts teachers' instruction and students' learning" (Psencik et al., 2016, p. 57). Instructional coaching, college courses, and online courses were reported as developing teacher leadership capacity in the 2017 award winners' schools.

The large number of statistically significant professional development activities among the 2017 award-winning schools was unexpected. Perhaps, specific states were supporting new initiatives that year that aligned with the professional development activities in my study or this is an anomaly. Overall, my findings indicated that award-winning teachers in 2017 reported that professional development was provided and sometimes developed teacher leadership capacity more than award-winning teachers in 2015, 2016, and 2018.

Research Question 5: What are the perceptions of administrators about building teacher leadership capacity in their schools?

This research question sought to understand the perceptions of administrators about building teacher leadership capacity in their schools. When administrators were asked if they believe that teacher leadership should be promoted and why or why not, administrators reported two primary categories, *Teachers' Empowerment* and *Assistance for the Administrator*. For the purpose of this research study, teachers' empowerment was defined as, "value teachers' input and voice; want teachers to express ideas and perspectives; take risks, make decisions".

Research supports teacher empowerment as a conduit to build teacher leadership capacity in schools. Teacher leaders are risk-takers with their opinions, contributions, and involvement in the school community (Augustine-Shaw, 2015; Rogers, 2005). Additionally, teacher leaders value different points of view, have confidence to express their opinions, and are comfortable to

share differences of opinion (Conley & Muncey, 1999). As the voice of the school, teachers can influence others, offer constructive criticism, and manage conflict within the school community (McKenzie & Locke, 2014; Singh, 2012; Warren, 2013).

Administrators cited *Assistance for the Administrator* as a rationale for promoting teacher leadership in their schools. For this research study, *Assistance for the Administrator* was defined as "providing help with duties or tasks, provide support, and assume responsibility as a manager and leader." In surveying my literature review, research supports assisting the administrator through collaborating and making educational decisions. In schools with high leadership capacity, principals and educators engage in significant conversations about curriculum and educational best practices (Wilhelm, 2013; Helterbrand, 2010). Through distributed leadership, principals and teachers collaborate and make important decisions regarding curriculum, instruction, and assessment practices (Printy, Marks, & Bowers, 2009).

When administrators were asked if and how they build teacher leadership capacity in their schools, administrators reported two primary categories, *Formal Leadership* and *Informal Leadership.* Distributed leadership recognizes both formal and informal leaders and their contributions to the school community (Harris & Spillane, 2008). For the purpose of this research study, formal leadership was defined as "an individual who holds an official leadership title; appointed role; the framework that the school utilizes for leadership; hierarchy; mentoring cited; utilize observation, discussion, modeling, and coaching to assist subordinates or inexperienced colleagues."

Administrators may enact a formal leadership structure in their schools for the purposes of creating an organizational hierarchy in the school and planning for leadership succession. Rogers (2005) noted that organizations depend on the identification, development, and formation

of new leaders who can guide the organization into the future. Highly qualified principals plan for leadership succession or the formation of teachers to become formal leaders (Rogers, 2005).

Administrators indicated that *Informal Leadership* was an important strategy to build teacher leadership capacity in their schools. For the purposes of this research study, informal leadership was defined as "an individual who leads without a formal leadership title; opportunity cited; and the chance to participate in a leadership role or to complete a leadership task." The role of the teacher leader can be informal and emergent and is usually driven within each teacher (Helterbran, 2010). The teacher leaders determine a need and orchestrate ways to address the concern using their own capabilities and resources (Helterbran, 2010). Teacher leaders can participate in decision-making as they lead professional learning community groups, mentor new teachers or staff members, and assist with management duties (Devos, 2014; Nappi, 2014). Summarizing the importance of formal and informal leadership in a school, Spillane & Orlina (2005) and Harris (2005) stated that distributed leadership is the foundation for reflecting on leadership and building teacher leadership capacity in a school.

Surprises

As I completed my research, these two surprises with the research results ascended to this section. First, teachers reported that *instructional coaching* was a valued (effective) professional development strategy to build teacher leadership capacity in award-winning schools. However, teachers indicated that instructional coaching was not frequently provided to foster leadership capacity in their National Blue Ribbon schools. It seems that teachers who have been exposed to instructional coaching would like *instructional coaching* to be provided more frequently in their schools and utilize i*nstructional coaching* to build teacher leadership capacity in their schools.

Secondly, administrators and teachers reported that frequent professional development included *workshops, conferences, archdiocesan or diocesan training,* and *online training* or *modules,* to build teacher leadership capacity in their schools. However, these professional development activities were reported as seemingly not as valued (effective) by administrators and teachers in their schools. This result may have implications on the types of professional development provided to administrators and teachers in schools. Based on this finding, the funding expended for previously listed professional development may be reallocated to other seemingly valued (effectiveness) types of professional development to build teacher leadership capacity in schools.

Implications for Action

Based on the research results, several implications for action emerged for educational leaders and practitioners. According to administrators and teachers, mentoring was provided and valued to foster teacher leadership capacity in their schools. For practical application, mentoring programs need to be established for new teachers and new-to-the-school teachers. Both mentors and new teachers would benefit from an organized program including a schedule of meetings, the discussion topics, and an observation schedule.

In addition to mentoring, teachers reported that teacher groups (vertical and horizontal teams) and teacher committees or task forces were provided and valued to foster teacher leadership capacity in National Blue Ribbon schools. For practical application, administrators and teachers should consider scheduling and planning meetings to discuss vertical and horizontal alignment of the curriculum. Additionally, teacher committees or task forces could be organized and executed among the professional colleagues. Besides being provided and valued professional development activities, mentoring programs, teacher groups (vertical and horizontal

teams), and teacher committees or task forces could be instituted at various school settings (suburban, urban, rural) and would probably be more cost effective than conferences, workshops, and trainings.

According to findings, administrators indicated that encouraging teacher empowerment in both informal and formal structures was an essential element to building teacher leadership capacity in their schools. Research also suggested that administrators, through personal reflection, can discern the school's strengths, areas for improvement, and possible ways that teacher leadership can be highly integrated in their school's culture (Helterbran, 2010; Lovely, 2005). Furthermore, administrators can create an organizational hierarchy, which identifies, develops and readies talented leaders for leadership succession in formal roles in the schools.

Implementing a formal leadership structure, administrators should promote a collaborative culture and establish a program of instructional coaching in their schools (Jaquith, 2013). "Instructional coaching is a powerful professional learning practice for facilitating others to make changes in instructional approaches that positively impact their teaching and student learning" (Psencik et al., 2016, p. 57). Bambrick-Santoyo (2013) suggested that experienced teachers serving as the instructional coaches should focus on specific topics and have designated times to meet with their new teachers.

Bearwald (2011) and Knight (2011) indicated that instructional coaching is about formation and progress. In partnership, the instructional coach and teacher could differentiate lessons, plan educational activities, secure resources, and implement engaging instructional strategies for their students (Collay, 2013; Harrison & Killion, 2007). Specifically, coaches and teachers should listen attentively, reflect on students' needs and goals, ask questions, analyze lessons, explain instructional strategies, provide positive and constructive feedback, and share

work across the school's teams (Bambrick-Santoyo, 2013; Jaquith, 2013; Knight, 2011; Bearwald, 2011).

For rural districts and smaller schools, instructional coaching can be established as an online format (Matsumura et al., 2016). In building trusting relationships with their remote coach, teachers can utilize this collaborative professional development to learn reflective practice, the delivery of instructional content, and new educational methods (Matsumura et al., 2016). "Online learning that combines opportunities for teachers to build new knowledge and apply that learning with feedback from other teachers and a highly-qualified coach shows real potential for improving teaching and learning" (Matsumura et al. 2016, p. 34). Both informal and formal teacher leaders need to be encouraged to participate in decision-making, be risk-takers, share different points of view, and use their voice to influence others, offer constructive criticism, and manage conflict within the school community.

Recommendations for Further Research

Even though this research may add to the study of high-performing schools, several areas should be considered to further add to the knowledge base of building teacher leadership capacity in award-winning schools. Specifically, the areas for investigation should include expanding the sample size, including teacher interviews to provide teacher voice, exploring the challenges and resolutions with building teacher leadership capacity, comparing teachers' professional development in various size schools, and examining new administrators' perspectives on building teacher leadership capacity. These recommendations are further explained in the following paragraphs.

In reviewing my independent variables, the schools' socio-economic status was not evenly distributed among the national sample of 98 schools. A total of 77 schools (78.5%)

reported 5% or less for free or reduced lunch. Specifically, nearly half, 45 schools reported 0% for free and reduced lunch and 32 schools indicated a 1-5% for free and reduced lunch. Because of the skewed distribution of percentages for free and reduced lunch, I was disappointed that I was not able to complete inferential statistics for this important independent variable.

As a result, I would recommend future research including the National Blue Ribbon Schools, Catholic or public, with lower socio-economic status in order to more fully investigate teacher leadership capacity. Of course, teacher leadership capacity in schools could be investigated, using comparison groups, such as differences between award-winning schools versus non award-winning schools, differences among school settings, and differences among the socio-economic status of schools. Undoubtedly, a limitation of this study was the socio-economic status (SES) of participating schools and the potential of learning from award-winning schools that would not be expected to achieve the National Blue Ribbon Award due to their lower SES status.

Another recommendation for future research is to listen to the voice of the teachers. Similar to the short answer questions for administrators in this study, the researcher could interview teachers and add open-ended questions at the end of the survey for teachers. These questions could focus on how administrators involve teachers in developing leadership skills and building teacher leadership capacity. Additionally, qualitative research could investigate participating in effective professional development, learning about onboarding for new teachers in the areas of leadership formation and development, and exploring leadership training in their pre-service programs.

Future research could investigate the challenges and resolutions in building teacher leadership capacity in a school. Qualitative research could explore the negative aspects of

teacher leadership, how challenges were resolved, teacher burn-out if teachers are not challenged beyond the classroom, and any obstacles that inhibited teacher leadership capacity. Interviews with administrators and teachers could more deeply investigate this topic.

Additionally, another recommendation for future research could compare teachers' professional development in various size schools according to student population. In this study, teachers in schools with smaller populations (1-330; 301-600) reported that college courses, internships (defined as induction programs such as student teaching), and professional learning communities were provided more frequently than schools with larger populations. Further exploration could include reviewing other sources for continuing the teachers' professional growth, determining if the distance from professional learning centers impacts teachers' professional growth. Additionally, the resources available to rural/urban schools compared to suburban schools could be investigated to find if funding impacts the teachers professional formation.

A final recommendation for future research is to investigate new administrators' perspectives and skills on building teacher leadership capacity. Quantitative and qualitative research could explore how teachers' leadership skills are identified, assessed, developed, and distributed to both informal and formal leadership roles and responsibilities. Further exploration could include how the new administrators structure the school's leadership to maximize teacher leadership capacity, learn about the leadership formation and development, and plan for leadership succession in their schools.

Concluding Remarks

This investigative study of teacher leadership capacity in Catholic National Blue Ribbon schools generated statistically significant data across all independent variables. Based on this

research study, administrators and teachers identified the qualities of teacher leaders and indicated the provided and valued professional development in their schools. Additionally, administrators were asked if they believe teacher leadership should be promoted and how they build teacher leadership capacity in their schools.

The United States Department of Education permits the Council for American Private Education (CAPE) to oversee the National Blue Ribbon process for non-public schools. One limitation of the application process is non-public schools, including Catholic schools, are strongly encouraged to apply for the National Blue Ribbon Award via the category of "exemplary high performing" schools. By contrast, public schools could receive communication about two application paths, "exemplary high performing" schools or "closing the achievement gaps among student subgroups". Due to the application path of "exemplary high achieving" for non-public schools, this research study had a disproportionate number of respondents in a suburban setting (138 of 199 or 69.3%) and a minimal free and reduced lunch percentage (77 of 98 with 5% free and reduced lunch or 78.5%). Therefore, it is not surprising that a disproportionate number of suburban non-public schools with high socio-economic status achieved the National Blue Ribbon Award.

Based on the findings, administrators and teachers indicated that teachers participate in professional development activities to build teacher leadership capacity in their schools. Surprisingly, administrators and teachers reported that mentoring, teacher groups (vertical and horizontal teams), teacher committees or task forces, and instructional coaching seemed to be the most valued (effective) professional development to foster teacher leadership capacity in their schools. Based on internal relationships in a school, these professional development activities should be cost-effective and accessible for all teacher leaders, regardless of their suburban,

urban, or rural settings. School leaders and teacher leaders could readily incorporate these professional development activities in their schools. Wallace (2019) confirmed similar findings in her research.

As this investigative research study focused on the qualities for building teacher leadership capacity in schools, administrators should consider incorporating leadership training for their teachers and encouraging teacher empowerment in the informal and formal structures in their schools. As teachers consider participating in decision-making, sharing their points of view, and using their voice to influence others, perhaps some of these informal leaders will accept formal leadership roles, a clear pathway to leadership succession.

Summary

This national research study, a quantitative survey with two open-ended questions, examined the qualities of teacher leaders in building teacher leadership capacity in their schools. Then, administrators and teachers indicated the provided and valued professional development that they believed has fostered teacher leadership. Additionally, administrators enriched the research study through their perspectives of promoting and building teacher leadership capacity in their schools. Some important findings indicated that the most provided and valued professional development activities to build teacher leaderships were mentoring, teacher teams (vertical and horizontal), teacher committees or task forces, and instructional coaching. These findings are encouraging because the most supported strategies to foster teacher leadership capacity could be readily accessible to teachers in their schools.

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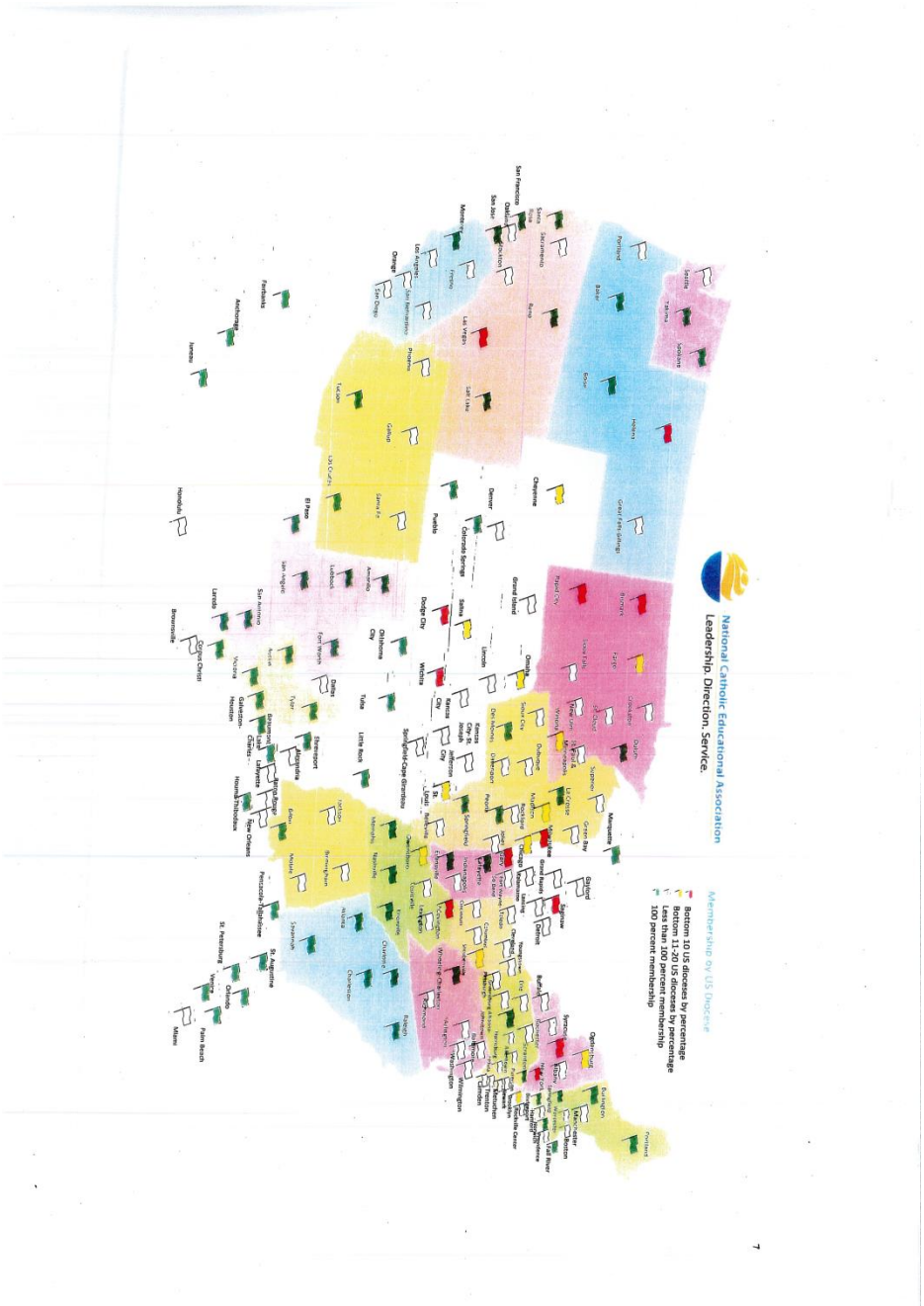
Appendix A

Map of the Archdioceses and Dioceses in the United States



Appendix B

Recruitment Process for Superintendents

Phone Call

I will call the superintendents and share the overview and details of this research study. (Project is independent, not affiliated with NCEA.)

My talking points are as follows:

1. Doctoral Candidate at Ball State University
2. My Background: Have worked in Catholic education as teacher, assistant principal, principal, assistant director for school leadership
3. Research entitled: Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools
4. Rationale: Limited research has been completed in Catholic National Blue Ribbon Schools; Focus on building teacher leadership capacity
5. Interested in how leadership capacity is developed among teachers in the building, specifically their participation in leadership roles and professional development activities.
6. Qualifying teachers and administrators are asked to take the survey via Qualtrics. Administrators will have two open-ended questions focusing on promoting teacher leadership and building teacher leadership capacity in the school.
7. I have a total of (number) of National Blue Ribbon Schools that qualified to participate in this study in your Archdiocese/diocese.
8. Request verbal permission to proceed with my research study involving their schools.
9. Will email the following documents to the superintendent:
    - Letter of Support from Superintendent
    - Principal Recruitment Letter
    - Teacher Recruitment Letter
    - Sampling of Survey Questions
    - List of Qualifying Schools
10. Request: Please place my letter to superintendents on letterhead, sign and return to me via email annettejones0908@gmail.com by date.
11. Please reach out the principals at the qualifying schools and ensure them that you have approved participation in this research study by date.
12. Please contact me by email or phone if you have any questions.
13. Thank you for supporting and approving this research study in your Archdiocese/diocese.

Appendix C

Letter of Support from Superintendents

Date

Dear Dr. Quick,

Recently, an administrative staff member has discussed with Annette Jones her interest in surveying administrators and teachers at selected National Blue Ribbon School in our district. As superintendent of the Archdiocese or Diocese of _____, I fully support her in these efforts and grant her permission to distribute the electronic surveys as described in her proposal.

This letter also verifies that Annette Jones, as part of her dissertation work, will be provided with demographic information of administrators and teachers from the participants in the Arch/diocese of _____. This data will be coded by schools to protect the anonymity of the individual employees. Annette Jones will analyze the coded data set collectively rather than by individual employees.

If at any point, Ball State University needs additional information, has further questions, or needs additional documentation from the Arch/diocese of _____, please do not hesitate to contact our office.

Sincerely,

Superintendent's Name
Superintendent

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Appendix D

Principal Recruitment Letter

INVESTIGATING TEACHER LEADERSHIP CAPACITY IN CATHOLIC NATIONAL BLUE RIBBON SCHOOLS

Dear Principal:

My name is Annette Jones. I am interested in learning more about how teacher leadership capacity is developed through informal responsibilities and professional development activities in Catholic National Blue Ribbon Schools. I am completing my doctoral degree in Educational Administration and Supervision at Ball State University, in Muncie, Indiana.

To be eligible to participate in the study, the principal (and/or assistant principal) must have worked as a school leader in this school the year prior to the National Blue Ribbon designation year. If you (and/or the assistant principal) qualify and decide to participate in my study, then you will agree to take an online Qualtrics survey and answer two open-ended questions about building teacher leadership capacity in your school.

I also request your assistance with identifying teachers who are eligible to participate in the study. Teachers must have worked as teachers in this school the year prior to the National Blue Ribbon designation year. Please distribute a teacher recruitment letter to all eligible teachers. If they qualify and decide to participate in my study, then they will agree to take an online Qualtrics survey only.

The focus of my study is to determine what informal responsibilities and professional development activities are utilized to build teacher leadership capacity in Catholic National Blue Ribbon Schools. The purpose of this study is to investigate leadership capacity of teachers in Catholic National Blue Ribbon Schools in order to share knowledge about preparing and developing teacher leaders. Specifically, this study will analyze the differences in what teachers value compared to what administrators value about qualities to build teacher leadership in their schools. This study will also compare the differences in their perceptions of professional development according to teachers and administrators.

All data collected and gathered will be confidential. School codes will be used in place of your administrators' and teachers' names to maintain confidentiality.

For questions about your rights in participating in this study, please contact Director, Office of Research Integrity, Ball State University, Muncie, Indiana, 47306, (765) 285-5070, orihelp@bsu.edu.

If you have any questions, please contact me amjones9@bsu.edu or Dr. Marilynn Quick at mquick@bsu.edu.

Thank you.

Annette Jones
Doctoral Candidate

Researcher Contact Information
Annette Jones
Doctoral Candidate
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (317) 408-1446
Email: amjones9@bsu.edu
IRBNet Number: 1316176-1
IRB email: orihelp@bsu.edu

Faculty Supervisor
Associate Professor
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (765) 285-3287
Email: mquick@bsu.edu

Appendix E

Teacher Recruitment Letter

INVESTIGATING TEACHER LEADERSHIP CAPACITY IN CATHOLIC NATIONAL BLUE RIBBON SCHOOLS

Dear Teacher:

My name is Annette Jones. I am interested in learning more about how teacher leadership capacity is developed through informal responsibilities and professional development activities in Catholic National Blue Ribbon Schools. I am completing my doctoral degree in Educational Administration and Supervision at Ball State University, in Muncie, Indiana.

To be eligible to participate in the study, the teacher must have worked as a teacher in this school the year prior to the National Blue Ribbon designation year. If you qualify and decide to participate in my study, then you will agree to take an online Qualtrics survey.

The focus of my study is to determine what informal responsibilities and professional development activities are utilized to build teacher leadership capacity in Catholic National Blue Ribbon Schools. The purpose of this study is to investigate leadership capacity of teachers in order to share knowledge about preparing and developing teacher leaders. Specifically, this study will analyze the differences in what teachers value compared to what administrators value about qualities to build teacher leadership in their schools. This study will also compare the differences in their perceptions of professional development according to teachers and administrators.

All data collected and gathered will be confidential and teachers' responses will be anonymous. School codes will be used in place of your administrators' and teachers' names to maintain confidentiality.

For questions about your rights in participating in this study, please contact Director, Office of Research Integrity, Ball State University, Muncie, Indiana, 47306, (765) 285-5070, orihelp@bsu.edu.

If you have any questions, please contact me amjones9@bsu.edu or Dr. Marilynn Quick at mquick@bsu.edu.

Thank you.

Annette Jones
Doctoral Candidate

Researcher Contact Information
Annette Jones
Doctoral Candidate
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (317) 408-1446
Email: amjones9@bsu.edu
IRB Number: 1316176-1
IRB email: orihelp@bsu.org

Faculty Supervisor
Dr. Marilyn Quick
Associate Professor
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (765) 285-3287
Email: mquick@bsu.edu

Appendix F

Principals Informed Letter of Consent

Date

Dear Principal,

According to the United States Department of Education website (www.ed.gov), your school has been recognized as National Blue Ribbon Schools in the (Archdiocese/Diocese of _____). Congratulations to you and your school communities for achieving this prestigious accolade!

As part of my doctoral program, I am researching the qualities of teacher leaders and how the professional development for teacher leaders in National Blue Ribbon Schools is valued. I am also interested in learning how administrators identify and involve teacher leaders in the school. My hope is to include your National Blue Ribbon School in my research study.

Study Title: Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools

Study Purpose and Rationale: The purpose of this study is to determine the qualities that teachers and administrators most value to build teacher leadership capacity in schools (as measured on Likert-scaled items on a survey). The study will also cite the professional development that is provided and valued to build leadership capacity among teachers in schools, according to teachers and administrators (as measured in a Likert-scaled response). Administrators will be asked their perceptions of building teacher leadership capacity in their schools (provided by open-ended responses).

Inclusion/Exclusion Criteria: Principals: To be eligible to participate in the study, the principal must have worked as the school leader the year prior to the National Blue Ribbon designation year.

Procedure/Duration: For this research study, you will complete an on-line survey (approximately 15 minutes) regarding teacher leadership. The qualities of teacher leadership and corresponding professional development activities are the topic of the study. Please complete this survey as soon as possible.

Voluntary Participation: Agreeing to participate in this study is completely voluntary. Participants are free to withdraw their permission at any time for any reason without penalty or prejudice from the researcher. Whether you participate or not, your decision does not have any bearing on your job and superiors will not know whether or not you participate. If participants have any questions, they are encouraged to ask the researcher before beginning the survey.

Data Confidentiality: All survey responses and open-ended responses will be confidential. The interview data will be assigned a code, which protects the participants from being associated with the data. No individual teacher or administrator will be identified.

Storage of Data: The data will be stored on a password protected laptop. Paper data will be stored in a locked filing cabinet in my office. Digital and paper data will be stored for three years and then deleted. Only members of the research team will have access to the data.

Benefits: There are no anticipated benefits to the participant with this study.

Risks or Discomfort: There are no anticipated risks or discomforts with this study.

IRB Contact Information: For the rights of the research subject, you may contact the following: Director, Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-7070 or orihelp@bsu.edu.

Researcher Contact Information
Annette Marie Jones
Doctoral Candidate
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (317) 408-1446
Email: amjones9@bsu.edu
IRBNet Number: 1316176-1

Faculty Supervisor
Dr. Marilynn Quick
Associate Professor
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (765) 285-3287
Email: mquick@bsu.edu

Consent:

Do you agree to participate in this study?

- ☐ Yes, I agree to participate in this study.
- ☐ No, I do not agree to participate in this study

Qualtrics Link

Appendix G

Teachers Informed Letter of Consent

Date

Dear Teacher,

According to the United States Department of Education website (www.ed.gov), your school has been recognized as National Blue Ribbon Schools in the (Archdiocese or Diocese of _____).
Congratulations to you and your school community for achieving this prestigious accolade!

As part of my doctoral program, I am researching the qualities of teacher leaders and how the professional development for teacher leaders in National Blue Ribbon Schools is valued. I am also interested in learning how administrators identify and involve teacher leaders in the school. My hope is to include your National Blue Ribbon School in my research study.

Study Title: Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools

Study Purpose and Rationale: The purpose of this study is to determine the qualities that teachers and administrators most value to build teacher leadership capacity in schools (as measured on Likert-scaled items on a survey). The study will also cite the professional development that is provided and valued to build leadership capacity among teachers in schools, according to teachers and administrators (as measured in a Likert-scaled response). Administrators will be asked their perceptions of building teacher leadership capacity in their schools (provided by open-ended responses).

Inclusion/Exclusion Criteria: Teachers: To be eligible to participate in the study, the teachers must have worked as a teacher in this school the year prior to the National Blue Ribbon designation year.

Procedure/Duration: For this research study, you will complete an on-line survey (approximately 15 minutes) regarding teacher leadership. The qualities of teacher leadership and corresponding professional development activities are the topic of the study. Please complete this survey as soon as possible.

Voluntary Participation: Agreeing to participate in this study is completely voluntary. Participants are free to withdraw their permission at any time for any reason without penalty or prejudice from the researcher. Whether you participate or not, your decision does not have any bearing on your job and superiors will not know whether or not you participate. If participants have any questions, they are encouraged to ask the researcher before beginning the survey.

Data Confidentiality: All survey responses and open-ended responses will be confidential. The interview data will be assigned a code, which protects the participants from being associated with the data. No individual teacher or administrator will be identified.

Storage of Data: The data will be stored on a password protected laptop. Paper data will be stored in a locked filing cabinet in my office. Digital and paper data will be stored for three years and then deleted. Only members of the research team will have access to the data.

Benefits: There are no anticipated benefits to the participant with this study.

Risks or Discomfort: There are no anticipated risks or discomforts with this study.

IRB Contact Information: For the rights of the research subject, you may contact the following: Director, Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-7070 or orihelp@bsu.edu.

Researcher Contact Information
Annette Marie Jones
Doctoral Candidate
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IRBNet Number: 1316176-1

Faculty Supervisor
Dr. Marilynn Quick
Associate Professor
Department of Educational Leadership
Ball State University
Muncie, IN 47306
Telephone: (765) 285-3287
Email: mquick@bsu.edu

Consent:

Do you agree to participate in this study?

- ☐ Yes, I agree to participate in this study.
- ☐ No, I do not agree to participate in this study.

Qualtrics link

Appendix H

Administrators Survey via Qualtrics

Ball State University
Department of Educational Leadership
Research Survey; Winter 2019
BSU 2019 IRB v4 SURVEY Administrators MQAJ March 10, 2019

Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools

Part I: Administrators

1. Signed Consent

2. School Code
   Provided by Researcher to School Administrator

3. Position
   Administrator (principal or assistant principal)
   Teacher

4. Gender
   Male
   Female

5. Total Years of Experience at Your Current School
   0-5 years
   6-10 years
   11-15 years
   16-20 years
   Over 20 years

6. Total Years of Experience in Education
   0-5 years
   6-10 years
   11- 15 years
   16-20 years
   Over 20 years

Part II: Administrators

We are interested in how teacher leadership capacity is developed among teachers in the building. Teacher leadership means teachers take on additional informal responsibilities (above teaching) to lead their colleagues in activities that help the school and/or build teaching capacity.

Teachers in questions 7-19: refers to myself or others who serve informally in teacher leadership roles.

7. I consider myself a leader of teachers.
   Strongly Agree
   Agree
   Unsure
   Disagree
   Strongly Disagree

8. Some teachers in this school are considered teacher leaders.
   Strongly Agree
   Agree
   Unsure
   Disagree
   Strongly Disagree

9. In my school, the process of building teacher leadership is considered…
   Very Important
   Important
   Unsure
   Slightly Important
   Not Important

10. In my school, teachers take on an informal teacher leader role.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

11. In my school, teachers who are considered informal leaders, encourage vertical alignment and coordination among teachers of different grades.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

12. In my school, teachers who are considered informal leaders, encourage horizontal alignment and coordination between teachers of the same grades.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

13. In my school, teachers who are considered informal leaders, promote an atmosphere of openness and trust within the faculty.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

14. In my school, teachers who are considered informal leaders, organize meetings (planning, preparing, chairing, and monitoring reports).
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

15. In my school, teachers who are considered informal leaders, keep track of annual planning (communication of information regarding upcoming events).
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

16. In my school, teachers who are considered informal leaders, monitor academic and social development of students.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

17. In my school, teachers who are considered informal leaders, assist teachers in finding and developing the most appropriate teaching methods and materials.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

18. In my school, teachers who are considered informal leaders, coach and assist new teachers.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

19. In my school, teachers who are considered informal leaders, actively seek out training and professional development opportunities (internal or external) for colleagues and themselves.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

Part III: Administrators

A. Please reflect upon the professional development activities in your Catholic school that have fostered leadership capacity within teachers. Please indicate below the <u>frequency</u> of these activities that have been provided by your school personnel or professional organizations.
    Very Frequently = More than 1 time per month
    Frequently = Approximately 1 time per month
    Occasionally = 2 times per semester
    Rarely = 1-2 times per year
    Never = 0 times per year

20. Workshops
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

21. College Courses
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

22. Online Courses or Modules
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

23. Conferences
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

24. Internships (such as Induction Program)
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

25. Individual or Group Research Project (such as Action Research, defined as "systemic form of inquiry carried out by teachers and administrators who seek answers to classroom-based problems and issues (Lee, Sachs, & Wheeler, 2014. p. 220).
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

26. Instructional Coaching
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

27. Observations of other Teachers' Classes (informal leadership training)
Very Frequently
Frequently
Occasionally
Rarely
Never

28. Involvement in Teacher Groups (such as vertical and horizontal teams)
Very Frequently
Frequently
Occasionally
Rarely
Never

29. Mentoring
Very Frequently
Frequently
Occasionally
Rarely
Never

30. Participation in a Professional Learning Community (PLC)
Very Frequently
Frequently
Occasionally
Rarely
Never

31. Participation in Archdiocesan or diocesan training
Very Frequently
Frequently
Occasionally
Rarely
Never

32. Participation on Teacher Committee or Task Force (such as Accreditation or School Improvement)
Very Frequently
Frequently
Occasionally
Rarely
Never

33. Completion of Requirements for National Board Certification

Very Frequently
Frequently
Occasionally
Rarely
Never

B. Please respond how well each of these professional development activities has developed teacher leadership capacity in your school.

34. Workshops in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

35. College course in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

36. Online Course or Modules in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

37. Conferences in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

38. Internships (such as Induction Programs) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

39. Individual or Group Research Project (such as Action Research) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

40. Instructional Coaching in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

41. Observations of Other Teachers' Classes (informal leadership training) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

42. Involvement in Teacher Groups (such as Vertical Teams) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

43. Mentoring in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

44. Participation in a Professional Learning Community (PLC) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

45. Participation in Arch/diocesan-wide Training in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

46. Participation on Teacher Committee or Task Force (such as Accreditation or School Improvement) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

47. Completing Requirements for National Board Certification in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

Part IV: Administrators Only (Open-ended Response)

48. Do you believe that teacher leadership should be promoted in the school?

    Why or why not?

49. Do you build teacher leadership capacity in your school?

    If so, how do you build teacher leadership capacity?

Administrators, thank you for completing this survey. Your responses will assist us with our research study on teacher leadership capacity in Catholic National Blue Ribbon schools.

Appendix I

Teacher Survey via Qualtrics

Ball State University
Department of Educational Leadership
Research Survey; Winter 2019
BSU 2019 IRB v4 SURVEY Teachers MQAJ March 10, 2019amj

Investigating Teacher Leadership Capacity in Catholic National Blue Ribbon Schools

Part I: Teachers

1. Signed Consent

2. School Code:
   Provided by Researcher to School Administrators and Teachers

3. Position:
   Administrator (principal or assistant principal)
   Teacher

4. Gender:
   Male
   Female

5. Total Years of Experience at Your Current School
   0-5 years
   6-10 years
   11-15 years
   16-20 years
   Over 20 years

6. Total Years of Experience in Education
   0-5 years
   6-10 years
   11- 15 years
   16-20 years
   Over 20 years

Part II: Teachers

We are interested in how teacher leadership capacity is developed among teachers in the building. Teacher leadership means teachers take on additional informal responsibilities (above teaching) to lead their colleagues in activities that help the school and/or build teaching capacity. **Teachers in questions 7-19: refers to myself or others who serve informally in teacher leadership roles.**

7. I consider myself a teacher leader.
   - Strongly Agree
   - Agree
   - Unsure
   - Disagree
   - Strongly Disagree

8. Other teachers in this school are considered teacher leaders.
   - Strongly Agree
   - Agree
   - Unsure
   - Disagree
   - Strongly Disagree

9. In my school, the process of building teacher leadership is considered…
   - Very Important
   - Important
   - Unsure
   - Slightly Important
   - Not Important

10. In my school, teachers take on an informal teacher leader role.
    - Strongly Agree
    - Agree
    - Unsure
    - Disagree
    - Strongly Disagree

11. In my school, teachers who are considered informal leaders, encourage vertical alignment and coordination among teachers of different grades.
    - Strongly Agree
    - Agree
    - Unsure
    - Disagree
    - Strongly Disagree

12. In my school, teachers who are considered informal leaders, encourage horizontal alignment and coordination between teachers of the same grades.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

13. In my school, teachers who are considered informal leaders, promote an atmosphere of openness and trust within the faculty.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

14. In my school, teachers who are considered informal leaders, organize meetings (planning, preparing, chairing, and monitoring reports).
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

15. In my school, teachers who are considered informal leaders, keep track of annual planning (communication of information regarding upcoming events).
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

16. In my school, teachers who are considered informal leaders, monitor academic and social development of students.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

17. In my school, teachers who are considered informal leaders, assist teachers in finding and developing the most appropriate teaching methods and materials.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

18. In my school, teachers who are considered informal leaders, coach and assist new teachers.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

19. In my school, teachers who are considered informal leaders, actively seek out training and professional development opportunities (internal or external) for colleagues and themselves.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree

Part III: Teachers

B. Please reflect upon the professional development activities in your Catholic school that have fostered leadership capacity within teachers. Please indicate below the <u>frequency</u> of these activities that have been provided by your school personnel or professional organizations.

Very Frequently = More than 1 time per month
Frequently = Approximately 1 time per month
Occasionally = 2 times per semester
Rarely = 1-2 times per year
Never = 0 times per year

20. Workshops

Very Frequently
Frequently
Occasionally
Rarely
Never

21. College Courses

Very Frequently
Frequently
Occasionally
Rarely
Never

22. Online Courses or Modules

Very Frequently
Frequently
Occasionally
Rarely
Never

23. Conferences

Very Frequently
Frequently
Occasionally
Rarely
Never

24. Internships (such as Induction Program)
Very Frequently
Frequently
Occasionally
Rarely
Never

25. Individual or Group Research Project (such as Action Research, defined as "systemic form of inquiry carried out by teachers and administrators who seek answers to classroom-based problems and issues (Lee, Sachs, & Wheeler, 2014. p. 220).
Very Frequently
Frequently
Occasionally
Rarely
Never

26. Instructional Coaching
Very Frequently
Frequently
Occasionally
Rarely
Never

27. Observations of other Teachers' Classes (informal leadership training)
Very Frequently
Frequently
Occasionally
Rarely
Never

28. Involvement in Teacher Groups (such as vertical and horizontal teams)
Very Frequently
Frequently
Occasionally
Rarely
Never

29. Mentoring
Very Frequently
Frequently
Occasionally
Rarely
Never

30. Participation in a Professional Learning Community (PLC)
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

31. Participation in Archdiocesan or diocesan training
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

32. Participation on Teacher Committee or Task Force (such as Accreditation or School Improvement)
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

33. Completion of Requirements for National Board Certification
    Very Frequently
    Frequently
    Occasionally
    Rarely
    Never

B. Please respond how well each of these professional development activities has developed teacher leadership capacity in your school.

34. Workshops in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

35. College course in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

36. Online Course or Modules in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

37. Conferences in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

38. Internships (such as Induction Programs) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

39. Individual or Group Research Project (such as Action Research) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

40. Instructional Coaching in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

41. Observations of Other Teachers' Classes (informal leadership training) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

42. Involvement in Teacher Groups (such as Vertical Teams) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

43. Mentoring in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

44. Participation in a Professional Learning Community (PLC) in my school developed teacher leadership capacity.
    Strongly Agree
    Agree
    Unsure
    Disagree
    Strongly Disagree
    Not Applicable

45. Participation in Arch/diocesan-wide Training in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

46. Participation on Teacher Committee or Task Force (such as Accreditation or School Improvement) in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

47. Completing Requirements for National Board Certification in my school developed teacher leadership capacity.

Strongly Agree
Agree
Unsure
Disagree
Strongly Disagree
Not Applicable

Teachers, thank you for completing this survey. Your responses will assist us with our research study on teacher leadership capacity in Catholic National Blue Ribbon schools.

Appendix J

Permission for Leadership Survey

September 15, 2018 (5:10AM)

Dear Annette,

I give my permission to adapt our survey published in our article provided the changes are limited to one or two words.

The reliability and validity data are also included in the EAQ article.

Kind regards,

Geert Devos

Op 26/07/2018 om 16:36 schreef Annette Jones:

Dear Dr. Devos,

This morning, I spoke with Ellen who works in central administration in the Dean's office. She confirmed your contact information and suggested that I email you.

Currently, I am working on my dissertation, *Empowering Teacher Leadership in National Blue Ribbon Schools*, at Ball State University located in Muncie, Indiana, USA.
As part of my doctoral research, I thoroughly reviewed your article, *The Role of Departmental Leadership for Professional Learning Communities.*

My research study involves the teacher leadership actions as valued by teachers and administrators. I am interested in adapting your survey- at most by changing one or two words. May I have your permission to adapt your descriptions for my research purposes?

Also, do you have the reliability and validity data of your survey?

I assure you that I will give full credit for your research survey to you and Dr. Vanblaere.

Best regards,
Annette Jones, Ed.S.

Mobile: 317-408-1446
Email: ajones@ncea.org

Annette Jones, Ed.S.

ASSISTANT DIRECTOR FOR SCHOOL LEADERSHIP

National Catholic Educational Association

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Appendix K

Permission for Professional Development Survey

From: Jeff Wise [mailto:wisej@pgrockets.org]

Sent: Wednesday, September 26, 2018 12:18 PM

To: Annette Jones

Subject: Re: Doctoral Survey on Professional Development

Hi Annette,

I apologize for the lateness of my reply. This is Homecoming week at my school, and it is a crazy time! My schedule completely flies out the window.

You are welcome to use my survey. For internal validity, I piloted the survey with a small group of principals and superintendents to address measurement validity. After making some changes, I distributed the survey to a group of "experts" to measure the construct validity. That group of curriculum directors and school administrators gave their feedback as well.

For the survey itself, I used questions I found in the NCES SASS Principal Questionnaire from 2011-2012, and the PBS Teacher Line National Survey of Teacher PD from 2005-2006. (You can see these in my appendices G-I). I had to make some modifications to some of the questions because they weren't directed toward principals specifically.

You can see the survey procedures I used on pages 95-102 in my study.

Good luck with your study, and if you have other questions, feel free to ask.

Best regards,

Jeff Wise

On Sun, Sep 23, 2018 at 6:57 AM Annette Jones <AJones@ncea.org> wrote:

Dear Dr. Wise,

Currently, I am working on my dissertation, *Empowering Teacher Leadership in National Blue Ribbon Schools*, at Ball State University located in Muncie, Indiana. As part of my doctoral research, I thoroughly reviewed your article, *Leading Professional Development: Perceptions of Ohio Principals.*

My research study involves the identification of professional development activities for the teacher leaders as valued by teachers and administrators. I am interested in adapting your survey-at most by changing one or two words.

May I have your permission to adapt your descriptions for my research purposes?

Also, do you have the reliability and validity data of your survey?

I assure you that I will give full credit for your research survey to you.

Best regards,

Annette Jones, Ed.S.

Mobile: 317-408-1446

Email: ajones@ncea.org

Annette Jones, Ed.S.

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Appendix L

Matrix of Corresponding Survey Items to Research Questions

Research Question	Corresponding Survey Item	Research Tools Used for Analysis
1. What qualities do teachers and administrators most value to build teacher leadership capacity in schools (as measured by Likert-scaled items on a survey)?	Questions 7-19	Descriptive Statistics
2a. What are the differences in what teachers compared to what administrators value about the qualities to build teacher leadership in their schools?	Questions 7-19	Inferential Statistics
2b. When comparing teachers to teachers across all independent variables, what are the differences in values about the qualities to build teacher leadership in their schools?	Questions 7-19	Inferential Statistics
3. What professional development is provided and valued to build leadership capacity among teachers in schools (as measured on a Likert-scaled response)?	Questions 20-47	Descriptive Statistics
4a. What are the differences in their perceptions of professional development according to teachers and administrators?	Questions 20-47	Inferential Statistics
4b. What are the differences in what teachers compared to their self-reported independent variables perceive about professional development, comparing all independent variables?	Questions 20-47	Inferential Statistics
5. What are the perceptions of administrators about building teacher leadership capacity in their schools?	Questions 48-49	Thematic Analysis

Appendix M

Validity Testing: Updates to the Survey

For the validity testing, experts in the areas of teacher leadership and professional development reviewed and commented on the survey instrument. The experts included an Assistant Superintendent (California), a National Distinguished Principal (Texas), the Director of Leadership Formation (Illinois), the Director of Catholic School Programs at a university (Indiana), and a superintendent (Virginia). The experts' recommendations included the following comments:

- Directions: Part II and Part III: Eliminate elementary and middle
- Directions Part II: Simplify section B
- Directions: Part II: Define teacher leaders as formal and/or informal role
- Directions: Part III B: Simplify directions
- Directions: Part III: Define very frequently, frequently, occasionally, rarely, never
- Directions: Part III: Determine the provider of the professional development
- Demographics: List National Blue Ribbon Award as: 2015, 2016, 2017, 2018
- Demographics: Add total years of experience
- Demographics: Define Administrator
- Question 8: Correct verb; change to encourage
- Question 9: Define group as "…with their colleagues."
- Question 11: Define annual planning
- Question 12: Clarify follow-up
- Question 13: Move to last question and add themselves
- Question 21: Define Action Research

- Question 24: Add horizontal
- Question 27: Use Diocesan-wide
- Question 28: Add Accreditation
- Question 42: Use diocesan-wide
- Conclusion: Add thank you and importance of the survey

Appendix N

Research Question 2b: Data Analysis for Gender

Dependent Variable	Gender	Mean	Std. Deviation	Significance
I consider myself a teacher of leaders.	male	4.23	.832	.887
	female	4.24	.700	.887
Some teachers in this school are considered teacher leaders.	male	4.54	.519	.781
	female	4.46	.629	.781
In my school, the process of building teacher leadership is considered…	male	3.85	.801	.281
	female	4.06	.841	.281
In my school, teachers take on an informal leadership role.	male	4.38	.506	.994
	female	4.36	.590	.994
In my school, teachers who are considered informal leaders encourage vertical alignment and coordination among teachers of different grades.	male	3.85	.555	.142
	female	4.11	.758	.142
In my school, teachers who are considered informal leaders encourage horizontal alignment and coordination between teachers of the same grade level.	male	3.77	.599	.015
	female	4.22	.702	.015
In my school, teachers who are considered informal leaders promote an atmosphere of openness and trust within the faculty.	male	4.46	.519	.383
	female	4.25	.723	.383
In my school, teachers who are considered informal leaders organize meetings (planning, preparing, chairing, monitoring reports).	male	3.77	.832	.162
	female	4.06	.911	.162
In my school, teachers who are considered informal leaders keep track of annual planning (communication of information regarding upcoming events).	male	3.62	.870	.167
	female	3.94	.903	.167
In my school, teachers who considered informal leaders, monitor academics, and social development of students.	male	4.15	.555	.586
	female	4.17	.842	.586

In my school, teachers who are considered informal leaders, assist teachers in finding and developing the most appropriate teaching methods and materials.	male	4.00	.707	.783
	female	4.01	.893	.783
In my school, teachers who are considered informal leaders coach and assist new teachers.	male	4.15	.801	.495
	female	4.29	.747	.495
In my school, teachers who are considered informal leaders actively seek out training and professional development opportunities (internal or external) for colleagues and themselves.	male	3.92	.641	.199
	female	4.12	.794	.199